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Higher Education: Changing Perspectives of the World Bank and the Lessons for India

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Delivering the landmark judgment in the Minority Educational Institutions (1993) case, the Supreme Court of India emphasized the need to protect and strengthen private-funded higher education system in the country. One of the important premises on the basis of which this significant observation, with far reaching implications, was made by the Court is that higher education is a 'private good', as opposed to a 'public good'. The Court observed:

"The idea of an academic degree as a 'private good' that benefits the individual, rather than a 'public good' for society, is now widely accepted. The logic of today's economics and an ideology of privatization have contributed to the resurgence of private higher education, and the establishing of private institutions where none, or very few, existed before".

World Bank vs UNESCO

The definition of higher education as a private/non-merit good was first proposed by the World Bank in the mid nineties, with the objective of putting a cap on public investment on higher education. The World Bank argued that developing countries should not invest their scarce resources on higher education. The attempt was to set off primary and secondary education against higher education. It was claimed that primary and secondary education have a greater claim to subsidies as compared with higher education, since the rate of social return on investment in the former is comparatively greater than that of investment in the latter. The World Bank document *Higher Education: Lessons of Experience* (1994) stated:

"Indeed it is arguable that higher education should not have the highest priority claim on incremental public resources available for education in many developing countries, especially those that have not yet achieved adequate access, equity and quality at the primary and secondary levels. This is because of the priority that countries attach to achieving universal literacy; because the social rates of return on investments in primary and secondary education usually exceed the returns on higher education; and because investments in basic education can improve equity because they tend to reduce inequalities".

Rejecting the World Bank's view of higher education as a non-merit good, UNESCO challenged the compartmental view of education and prioritization of one sector over another, as early as 1995 through its document *The Policies for Change and Development in Higher Education* which maintained:

"State and society must perceive higher education not as a burden on federal budgets but as a long term domestic investment in order to increase economic competitiveness, cultural development and social cohesion. ...As a conclusion one could say that the public support to higher

education is still essential in order to ensure its educational, social and institutional mission."

Government of India Paper on Subsidies

But policy planners in India found the World Bank logic more suitable to their interests, and accordingly formulated the Government policy on higher education. Thus Government of India duplicated the World Bank's thinking in the discussion paper *Government Subsidies in India* issued in May 1997. The paper sought to differentiate between merit goods and non-merit goods on the basis of their externalities or social returns. The paper suggested that cutting down the subsidies on non-merit goods could reduce fiscal deficits. It brought out the fact that in 1994-95 subsidy for services provided by the central and state governments amounted to 14.4% of the GDP of which 5.6% was spent on education. It was proposed that the extent of total subsidies be reduced by 50%. Education beyond elementary level was classified as non-merit good because there the benefits of subsidies accrue primarily to the recipients. On the contrary, the benefits of providing elementary education spread well beyond the immediate recipients. Therefore, it was argued that the subsidy on higher education should be reduced from the existing 90% to 25% over a period of five years. It was pointed out that the rich often appropriate the subsidies in higher education and that the target population is not actually benefited by subsidies. The logical conclusion of this line of argument was that subsidies in higher education, paid out of public funds, often led to the paradox of the poor subsidizing the rich!

World Conference on Higher Education

Rejecting the World Bank's view of higher education as a non-merit good, the policy document *Higher Education in the Twenty-first Century: Vision and Mission* framed by the World Conference on Higher Education (1998) categorically stated that higher education is a public good, the benefits of which cannot be fully estimated in monetary terms alone. It stated that public support for higher education and research remains essential to ensure a balanced achievement of educational and social missions. *The Framework for Priority Action for Change and Development of Higher Education* evolved in the World Conference recommended that the "states, including their governments, parliament and other decision makers should establish, where appropriate, the legislative, political and financial framework for the reform and further development of higher

education, in keeping with the terms of *Universal Declaration of Human Rights*, which establishes that higher education shall be accessible to all on the basis of merit. No discrimination can be accepted, no one can be excluded from higher education or its study fields, degree levels and types of institutions on grounds of race, gender, language, religion, or age because of any economic or social distinctions or physical disabilities... Each higher education institution should define its mission according to the present and future needs of society and base it on an awareness of the fact that higher education is essential for any country or region to reach the necessary level of sustainable and environmentally sound economic and social development, cultural creativity nourished by better knowledge and understanding of the cultural heritage, higher living standards, and internal and international harmony and peace, based on human rights, democracy, tolerance and mutual respect".

Independent Task Force Report on Higher Education

The UNESCO documents provided the source of inspiration for the growing opposition to the non-inclusive and exploitative policies of the World Bank. It could force the World Bank to reconsider its policies in respect of tertiary education. Accordingly an independent Task Force was appointed jointly by the World Bank and UNESCO in 1998. The Task Force consisting of 14 members from different countries, including Dr Manmohan Singh from India, reiterated the earlier policy perspectives of UNESCO with greater force and vehemence in its report entitled *Higher Education in Developing Countries: Peril and Promise*. Task Force Co-Chair Henry Rosovsky said: "The Task Force makes a simple point: Higher education has never been more important to all nations than it is right now. By contributing to governance, culture, democracy and the spirit of enterprise, higher education creates valuable public goods".

The first activity of the task force was to take stock of the higher education scene in the developing world, which is home to 85 percent of world population, but to barely more than half of the world's 80 million higher education students. Of the roughly 40 million higher education students in developing countries, relatively few are enrolled in truly high quality programs. The rest face a slew of problems. They are taught by poorly-qualified, poorly-motivated and (no surprise) poorly-compensated faculty, struggling with inadequate facilities and outmoded

curricula. Yet these are the young people who we must count on to grapple with the huge task of building a better future for the developing world. These are the young people who will provide the 'capacity' to run more effective governments, develop the businesses of the future, and build the health and education systems that make such a difference to the quality of life. Even more disconcerting for the Task Force was the realization that, without bold action, the performance of the South's higher education systems seems certain to worsen. Three factors are at work here. First, the uncontrollable demand for higher education. Second, the growing importance of knowledge in the modern world. And third, the inexorable and often cruel logic of globalization.

David E Bloom, head of the Task Force Secretariat elaborates on the findings of the report on these issues thus:

"First, we should salute, but recognize the problems caused by the incredible and growing thirst for education that we see all around the world. We have educated more and more young people at primary and secondary level - but, like *Oliver Twist*, they want more! They realize something that even the richest governments are only beginning to wake up to: in today's world, higher education is basic education. Today, higher education is needed by the masses - and can no longer be confined to tiny elite.

Added to this thirst for knowledge and skill are some demographic realities. Most developing countries have large babyboom generations. And as babies will, these boomers are growing up. So there are more and more young adults. And more of these young adults feel the need for advanced education. It is worth noting, of course, that this is a huge opportunity dressed up as problem - not the other way round. The baby boomers will keep aging and, as the West struggles to cope with increasingly aged and decrepit populations, the developing world will have access to a demographic dividend as a rising proportion of workers support a falling proportion of dependents. This dividend will be collected, however, if - and only if - the workers have the education to create, seize and exploit new opportunities.

So developing countries cannot stand still and focus their attention on improving the quality of their higher education systems. They must first direct their efforts and resources to increasing the quantity of education on offer. And they must do it in a planned way. At the moment, this planning is not there and it's

leading to a burgeoning of new institutions - many of them private, most of them poorly focused, and some that do little more than prey on the aspirations and assets of well-intentioned students and their families.

Second, developing countries face the problem that, across the world, everyone recognizes the growing importance of knowledge - that weightless asset that is fast supplanting tangible resources as the foundation of wealth and power. Unfortunately, knowledge begets knowledge and rich countries have, so far, shown themselves to be in a better position to nudge their higher education systems in the direction of providing what will be needed in tomorrow's world. The knowledge economy seems to be reinforcing and further magnifying income differentials that are already huge by historical comparison. IT has some countervailing potential - but so far it has delivered most of its benefits in rich countries. It was in the USA, not an emerging nation, that a university, Stanford, and a whole series of new technologies came together to produce Silicon Valley --a phenomenal (if not troubled) economic powerhouse.

The third factor - globalization - adds to these difficulties. As we know, it is a shorthand term for the process through which national economies are integrated. Globalization occurs through four principal channels: movements of goods, capital, labor, and ideas. Its potential benefits are huge but, so far, these benefits have been delivered predominantly to the rich world. As a result, as the Battle in Seattle highlighted, the process of globalization faces growing opposition. But in the meantime, globalization increases the ability of rich countries to compete for talented students and faculty and focuses their attention on the problems of the North, not the South. Globalization is also making the world economy increasingly competitive, and increasingly unforgiving of laggards. The phenomenon of drain, train, and retain the best brains clearly undermines the South's ability to compete in business - as well as weakening its chance of building the better government and higher education systems that are essential to it achieving even a semblance of parity with the North (UNESCO, 1998).

Methods of evaluating the benefits of higher education have traditionally been quite narrow, neglecting higher education's role in generating public goods. The rate of return to the individual has generally been measured in terms of higher salaries, with only the increased taxes these salaries incur counted as a public benefit. By this measure, investment in higher education delivers significantly smaller public and

private returns than investment in primary and secondary education. Donors have therefore tended to downplay the importance of advanced education and, in some cases, have advised governments to withdraw funding from the sector."

Prof Bloom, himself a noted economist, admits that modern ignorance about higher education has been invented by economists. Their habit of knowing the worth of everything, but the value of nothing, has led the World Bank to an incredibly simplistic way of assessing the return on investments in higher education. He explains:

The basic flaw is to measure return on education exclusively through wage differentials. Take someone who has no education, someone who has been to primary school, someone who has completed secondary school, and someone with a university degree. How much more does each earn than the previous? These differentials are then compared to the incremental amounts invested in their education to find the return. The results generally suggest that higher education yields a lower return than primary or secondary education - and they have been used to justify the skewing of government budgets (and developments funds) away from higher education institutions.

Higher education obviously confers benefits above and beyond enhancing the incomes of those who received their degrees. And many of these benefits take the form of public goods, such as the contribution of higher education to enterprise, leadership, governance, culture, and participatory democracy. These are all vital building blocks for stronger economies and societies and all routes by which the benefit of investment in higher education multiplies throughout society.

Common sense tells us that countries need primary, secondary, and tertiary education, not two out of three. All three are vital to human, social and economic development. All three are very definitely in the public interest. So the Task Force is adamant that education should not be thought of as a zero-sum game, where basic education is pitted against advanced study. Education is a positive sum game. We need more of it, and of higher quality, at all levels.

A focus on public interest and higher education has two further implications. First, that market forces alone will not deliver vital public goods. Markets are moved by profit, mainly quick profit. Private interests overlap, but only partially, with a society's long-term

interest in accumulating and imparting knowledge and its capacity for generating new knowledge. This observation is especially true with respect to the basic sciences and the humanities, vital subjects the market will never deliver optimally because there is not enough money to be made. Markets, on their own, will not deliver educational access for all, either. They will cater mainly to the privileged, creating education for the elite, not the masses. The public's representative - i.e. government must be prepared, therefore, to protect the public interest. This does not mean that governments should crowd other players out. But it does mean that government must be prepared to act as guide, facilitator, funder in some areas, strategic planner and, when necessary, regulator prepared to wield a hefty stick.

The second implication of our focus on the public interest concerns the oft-repeated argument that public investment in higher education is socially inequitable because university graduates - the future elite - are already part of the current elite and therefore not deserving of public subsidy. This view has some merit, but it is not decisive. Higher education confers huge benefits on society as a whole. It would be narrow-minded and counterproductive for a society to forego those benefits simply because they are not distributed equally. Society must get people to pay as much for their education as they are able to - and simultaneously avoid shooting itself in the foot!"

World Bank's New Perspective on Higher Education

Under the pressure created by repeated challenges to its wisdom, the World Bank was compelled to revise its earlier policy perspective at least partially so as to save itself from being swept off its feet by the current of international criticism against its policies. Accordingly, the Bank appointed its own Task Force on Higher Education and Society. The report brought out by the Task Force entitled *Constructing Knowledge Societies: New Challenges for Tertiary Education* (2002) has finally revised the earlier Bank approach to higher education by acknowledging it as a public good, though the report does not fully accept the implications of the new approach in its framework for action. Emphasizing the change in the approach, Mamphela Ramphele, Managing Director (Human Development) World Bank writes in the foreword to the report:

"A look at World Bank lending for education over the past three decades shows that about a quarter of

the entire education portfolio has consistently been dedicated to projects in tertiary education. Before 2000, borrowers for tertiary education tended to be middle-income countries, with clients such as Argentina, China, and Indonesia receiving some of the largest loans for this purpose. Then, in 2000, the World Bank and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) published *Higher Education in Developing Countries: Peril and Promise* (2000), a report by the independent Task Force on Higher Education and Society. World Bank President James D Wolfensohn wholeheartedly endorsed the conclusions of the report—that tertiary education is important in building capacity and reducing poverty.

Largely in response to growing requests from low-income countries for tertiary education projects, the World Bank has been active in expanding stakeholder dialogues on tertiary education reform and in the preparation of new loans, including initiatives in South Asia and Africa. The Bank recognizes the need to embrace a more balanced, holistic approach to investments and to encourage improvements in the entire lifelong education system, irrespective of a country's income level...

Underlying the diverse array of problems and solutions is the notion that tertiary education confers important public goods that are essential to development and poverty reduction—goods that must be accessible to all strata, to all peoples, and to both men and women. The report also emphasizes that tertiary education can no longer be viewed as a discrete sub sector of education. Rather, it must be seen as but one critical element that buttresses a holistic system of education—a system which must become more flexible, diverse, efficient, and responsive to the knowledge economy. This study recognizes that context is vital to understanding problems and that stakeholder consultation is imperative in designing solutions".

Lessons for India

The Independent Task Force Report and the World Bank Task Force Report have aroused considerable interest around the world and have been followed up by affirmative action, especially in the third world, except perhaps in India. Pakistan's President has now accepted the Independent Task Force Report and recommended the establishment of a steering group to guide implementation. Four teams have been set up to address areas where the Task Force believes change can be readily achieved. Three priorities are to promote

financial disclosure; increase the professionalism of higher education management; and create a community to address curriculum reform. The fourth team will attempt to create a National Higher Education Commission to support and nurture the process.

The World Bank's new thinking on higher education is even more educative. It is obvious that the World Bank has totally reversed its definition of higher education over a period of eight years—from 1994 to 2002. Higher education is no longer a 'a private good' but 'a public good' even in the eyes of the World Bank. It does not mean that the bank has reversed its policy of exploitative funding. A close reading of the World Bank document shows that the contrary is really true. The Bank has actually appropriated the logic of its opponents to promote its own agenda of exploitation by cashing in on the increasing demand for higher education all over the world. The revelations of Joseph Stiglitz, former Chief Economist of the World Bank in his recent book *'Globalization and its Discontents'* should leave no one in doubt about the hypocrisy of the Washington Consensus Institutions. But the World Bank's somersault is useful in two ways. Firstly it shows how unreliable the World Bank's advice is in framing long term developmental policies. A policy perspective which becomes outdated in eight years is hardly a dependable guide. Secondly, it could encourage a rethinking on the neo capitalist policies being pursued in developing countries under the aegis of the World Bank. Unfortunately our Governments at the Centre and in the States and the apex and the lower Judiciary continue to be guided by the old ideology of capitalist globalization despite the fact that its greatest apostle on the earth—namely the World Bank—has been compelled to repudiate it, at least in part, albeit for strategic reasons.

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Cafeteria Type of Courses in Teacher Education

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The field of Teacher Education is dynamic as well as innovative in nature and therefore many a changes are required to be felt as needed for introduction. After the introduction of distance mode based modular and other courses, programmed instruction, etc., recently the wave of introducing some cafeteria type of courses has pervaded in all walks of higher education and thus a serious thinking is initiated to pay attention in the area of professional courses like Teacher Education, too.

Cafeteria Type of Courses

Contrary to the continuous and regular courses of Teacher Education at different levels, the cafeteria type of courses are those which are being designed as the modified form of capsule courses in terms of its self-sufficiency, shorter time duration requirement, constant and active participation based and feedback oriented nature supported with formative and continuous diagnostic form of evaluation. Such courses may be formulated as useful for different category of people within and outside of the profession of teaching.

Cafeteria type of courses are not the full time or regular degree / diploma oriented ones in characteristics (like taking a full meal in hotel) but functional and certification-based ones (like taking a breakfast or 'chats' in a café) dominated with the need fulfilment of the persons or participants. It is quality oriented performance dominated and readily available package having little entrance formalities. Such courses are usually formulated as skill-based and technically structured giving ample scope of practice and activities. In the area of teacher education, there is a scope of designing a number of such courses suitable for a wide range of people like in-service teachers, administrative and management personnels, guidance services people, curriculum and text book designers and educational psychologists. The following cafeteria type of courses were considered as useful and suitable for the field of Teacher Education:

- Cafeteria Type of Course in Educational Administration,

- Educational Finance and Management,
- General and subject-wise specific Teaching Skills,
- Guided learning skills,
- Instructional Materials preparation Skills,
- Educational and Integrated Guidance,
- Vocational Assistance through counselling and follow-up-programme,
- Psychological management of young and adolescent learners,
- Class control and efficient communication skills,
- Individual and small group teaching skills,
- Skills for teaching in coaching classes and centres for training in competitive examinations,
- Educational technology and information techniques,
- Functional teaching models and strategies,
- Child development and education,
- Single/dual teacher primary school management, etc.

Some courses may also could be developed in the area of Creative Writing, Textbook Preparation and Writing of Research Papers/Reports, etc. in the area of Teacher Education. Other such courses may also be designed.

Need: Cafeteria type of courses are needed due to their remarkable characteristics and merits, as specified here.

- **Characteristics:** These courses may be proved as helpful in the generation of resources for Teacher Education institutions which being the call of the day, without any compromise with the quality of the programmes of regular Teacher Education, due to continuous downfall in the financial support of UGC and the Government in the field of higher education in general and Teacher Education, in particular.

- Though the National Council for Teacher Education is concerned with the quality control issues and the determination of the minimum resource status of Teacher Education institutions for its approval etc. It is not in favour of providing direct financial supports. To avoid commercialisation in Teacher Education and to raise the resource status as well, such course of need-based pattern may be of prime importance as well as helpful to maintain the standard of Teacher Education institutions.
- Such courses will be in addition to the regular Teacher Education courses with specialisation oriented nature and thus participants of regular courses may also enrol themselves in such courses. If a course of computer assisted teaching-learning where computer operation is initiated, majority of prospective teachers will be ready to participate.
- Since these courses will be expertise achievement targeted, the Teacher Educators may also be in a position to gain in their effectiveness and efficient working.
- If teaching is to be considered as a profession, teachers and Teacher Educators are then eventually to be designated as professionals and till the authorities are not providing them with any sort of 'non-practising allowances', they may be set free to market their skills and expertise through such courses.
- The persons and experts from other fields may also be attracted to Teacher Education institutions and help in diminishing the distance between the fields. Persons in the fields of literature, management, private coaching, textbook publishers, researchers administrators etc. may find such type of courses useful according to their needs.
- Such courses may either be organized during vacations or in evening hours or holidays for the benefit of in-service persons and to set them free from the problems of leave, etc.
- Due to the fixed working and participation-hours need, the courses may not be much heavy and burdensome for the busy and highly engaged persons of modern times.
- Since, e-library, Internet, printout taking facilities will be attached with the courses on payment basis under the roof of Teacher Education institutions, availability of learning and resource materials will not be a problem for participants as well as resource persons.
- Due to the constant use of multi-media and other modern means of communications, the courses will not be like that of the traditional, lecture based and boring ones in nature.
- The candidates who remain unable to be admitted to regular Teacher Education courses due to one or the other reasons may be benefited along with the in-service teachers.
- Such courses may serve a better alternative for the orientation and refresher courses supported by UGC, and may be designated at par with those courses.
- Such functional courses may ultimately be helpful to improve the status of teaching as well as educational administration in various institutions where the heads, in-charges and teachers are not fully or partially trained, at all.
- Cafeteria type of courses may use continuous evaluation techniques (courses in modern educational evaluation techniques may also be offered) and thus be free from the burden of any annual or semester type of examination system.

In this way, it is obvious that the first decade of the *Twenty-first Century* is going to be a period of cafeteria type of courses in higher education as well as in Teacher Education. Many universities are serious about such courses.

But there may be some organisational problems which a Teacher Education institution may have to face while implementing such courses:

- Modernisation of the teaching-learning set up will be inevitable and at initial stage, the infrastructural and establishment cost will be high.
- Traditional minded Teacher Educators may not support initiation of such courses and oppose using their so-called seniority-influences in planning and execution of such plans and programmes.
- Slogans may be raised against such courses saying that these are against the welfare of weaker sections of the society and the poor, and are in favour of the elite groups only.
- Division of economic return may be a problem between the experts and administrators. Management may require to decentralise the control and power, and this may be a difficult task. When the 'power hunger' will be given more value and preference against ability and quality, the

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Humanising Green Education through Participatory Management

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We all are human beings and live in a society. It is the society within which whatever education we get is practised or preached. No education can be complete without giving it a humanised form. In view of this fact, medical and engineering education has incorporated behavioural science as one of the compulsory papers so that 'technocrats can be humanised'. Through it, an engineering student can realise the relevance of 'Human engineering' and a doctor can understand how his/her treatment can respond much more effectively if he is able to understand the psyche of the patient, role of psychological factors in disease and more so, is able to establish good patient-doctor relationship. Besides technical education, social and human sciences are getting more and more important in almost every sphere of knowledge and profession in today's globalising world and forestry education. Green Education is no exception to that.

Forests have a very important role to play in the development process of a nation. Forests are not only essential for a better quality of life, but they are must for the very survival of the nation. The nation is faced today with the serious challenge of conserving, protecting and managing the forests for the production of maximum goods and services for community and at the same time, increasing the area under forests by planting the wastelands and improving the density of the forest cover in the existing forests. Therefore, the issue of time appropriate forestry education has become much more pertinent in today's globalising world.

Forestry Education: History and Context

Forestry education, an allied Civil Service known as Indian Forest Service (IFS) also provides technical education about raising, maintaining, conserving and utilising forests. The birth of forest management in India dates back to the emergence of Indian Forest Service in 1967, the training arrangements for which was made with the Forestry College at Coopers Hill, England. In 1878, the Forest Research Institute was started at Dehra Dun.

From 1926, an arrangement to train IPS probationers was developed at Dehra Dun. The Indian Forest College was opened in 1938, which is still functional for training probationers. However, with the globalisation and changing socio-economic scenario of the country, there is a strong need for incorporating social sciences in the training package (Keswani P, 1988).

Forestry in India has remained largely under colonial influence, which was the period of exploitation of forests and, undermining of rural communities' interests and needs. Indian foresters were also groomed in such a way that they viewed the activities of resident communities as 'biotic interference' and role of foresters essentially remained that of protectors of forest from local people (Fernandes et al. 1988; Shepherd 1992 a, 1992 b). In this process, hostility and distrust which have continued unabated, flared up between local communities and forest officials (Khan, 1996). The position and power of bureaucracy was consolidated by increasing their numbers and authority (Poffenberger, 1990).

Joint Forest Management: A Recent Upheaval

Only one and a half decade back, foresters and planners have begun to realise that their role of policing India's vast forest areas was neither responding to the needs of nature nor to the nation's rural communities. As a result, National Forest Policy (1988) was framed which was the first step in the direction of humanising forestry.

"Having regard to the tribal people and forests, a primary task of all agencies responsible for forest management, including the forest development corporation should be to associate the tribal people closely in the protection, regeneration and development of forests as well to provide gainful employment to people living around the forest" (NFP 1988-4.6) "

The policy document envisages it as one of the essentials of forest management that the forest

communities should be motivated to identify themselves with the development and protection of forests from which they derive benefits. The establishment of Joint Forest Management has also allowed departmental field staff to redefine their relationship with village people to regain their trust and alliance.

In view of the emerging changes in forest policies and global environmental scenario, capacity building and competence development of forest officers are two of the important pre-requisites for effective forest management. With the incorporation of participatory approach for sustainable natural resource management, the education and training component has become much more pertinent than ever before. The professional forester of today is charged not only with protecting the forest against illicit fellings and encroachments, catering to the needs of the community for fuel, fodder and small timber and managing the forests for production on a sustained basis but also generating confidence in the rural people in community forestry programme based on National Forest Policy (1988). This calls for a strong well educated and trained cadre of foresters (Pande, GC 1988).

Humanising Forestry Education

In this changed context, the need for humanising forestry education was felt. Miller, (1993) indicated that besides competence in forestry, foresters at all levels must have some understanding of social sciences and agriculture to enable effective collaboration. In addition foresters must learn sufficient humanity to accept that the forest management objectives involve much more than green cover protection, i.e., local communities. Thus, 'multiple objective forestry' is the need of today. Promotion of social forestry, farm forestry and wildlife management not only calls for special skills and training in management of both human and natural resources, but also special techniques like mass communication, extension and interaction with people and non-governmental organisations. It is clear now that forestry is not only about trees but it is about the whole forestry environment. Individuals trained to manage the forest resource may require a pluralistic understanding of the situation and increased number of diverse skills. However, no one individual can possess all the skills required for modern forest management, and it is

essential that modern forest managers work as members of a team. In this regard the problem of multi vs. meta disciplinary approaches become pertinent.

Multi-disciplinary vs Meta-disciplinary Approach

In today's era of multi-disciplinary approaches, people are of the view that forestry education also requires multi-disciplinary approach incorporating forestry, environmental, agricultural, social and behavioural sciences and what not. This may, some times, shift the major focus making the forest managers more of generalists rather than specialists. In a paper delivered in 1971, Westoby cautions that establishment of multi-disciplinary teams is not an answer to the problems of fragmentation and integration. It is like putting all the specialists together, creating their own boxes in charts and displaying tubular, aggressive tribal tendencies of most unscientific nature. Westoby (1987) describes meta-disciplinary approach as more suitable for forest managers which gives a solid grounding in a given area of expertise and with a general knowledge of subsidiary social, behavioural, communication and managerial skills. In this way they will become the specialists in forest management with a fairly enough idea about various managerial problems they are likely to come across.

Traditionally, foresters have been trained to have an appreciation of the basic physical and biological sciences pertaining to forest ecosystems, the knowledge of sciences, technologies and economies which underpin both wood production and environmental management and a professional experience of forest policies and management systems. The complexity of forest management has been increased due to changing demands on forests and on technological developments in many areas including management systems like computer simulation, Geographical Information System (GIS), etc.

There are further requirements for foresters to develop their communication skills, especially with public and to have somewhat greater expertise in areas that were earlier, peripheral to the mainstream of forestry education like agro-forestry, land rehabilitation, urban forestry, extension forestry, community forestry, business management, environmental law, conflict resolution and a better appreciation of the role of forestry in national and international context (Bachelard and Griffin, 1993).

Current Status of Forestry Education and Training

Currently, the status of forestry education is divided into three categories:

University Education: Since the last three decades, certain traditional as well as Agricultural Universities of India are running full fledged degree courses like BSc Forestry (Calicut), MSc Forestry and doctoral facilities (Solan, HP) and also elective courses/one subject courses in many other universities.

These Universities produce hardcore forestry experts whose future lies in providing technical/academic expertise to timber-based industries as forestry consultants and academic institutions for training the forestry work force etc. However, these courses were not able to provide placements, and therefore, could not make any impact or attract many students. The main problems were lack of necessary faculty support, non-coordination with state forest departments, Forest Research Institute and the IPS cadre. To overcome these problems, the need to have some coordinating body in the field of forestry the education and research was felt and the Indian Council of Forestry Research and Training (ICFRE) was planned.

The Indian Council of Forestry Research and Training has been created to formulate, organise, direct and manage forestry research and impart forestry education. Its objectives are:

- To undertake aid, promote and coordinate forestry education, research and its application.
- To develop and maintain a national library and information centre for forestry.
- To act as a clearing house for research and general information relating to forests and wildlife.
- To develop forestry extension programmes and propagate them.
- To provide consultancy services in the field of forestry and allied services. It has eight research institutes and three advanced centres in different parts of the country.

Facets of forestry education are central for the progress of scientific forestry. With a view to making forestry education more fruitful and relevant, the Forest Research Institute, Dehra Dun was granted the Deemed University status by the Ministry of HRD, Government of India in 1991. In order to exercise

general supervision and coordinate forestry education, a full fledged Directorate of Education was created in ICFRE in 1993.

The main functions are:

- Supervision of the Forest Research Institute deemed university in postgraduate and doctoral programmes.
- Arranging educational and training programmes to generate trained human resource.
- Supporting universities in imparting forestry education.
- Conducting professional skills' development programmes.
- Review and development of forestry education curricula in universities.
- Validation of forestry curricula in forestry education channel leading to forestry degrees.
- Providing research fellowships.
- Planning human resource development.

However, in the rapidly growing era of humanisation and participation, there was a trend of linking all the sectors with management and a need to have sectoral management institute in the field of forestry was also felt. As a result, the Indian Institute of Forest Management, an autonomous institute under the Ministry of Environment and Forests, Govt. of India was planned.

The Indian Institute of Forest Management The National Commission on Agriculture (1972) identified low investment leading to low productivity of the Indian forests as the major cause of failure of forestry sector to cope with the rising demands and suggested substantial investments into forestry. It tried to achieve a balance between demands of industries and local people through concepts of production and Social Forestry.

The case for bringing renewable natural resource system under business management and for training managers on economic and business aspects as suggested by the Ford Foundation Consultant necessitated the creation of an institute:

- To provide training in economic and managerial aspects of forest related areas of associated primary wood-based industries.
- To build the staff for conducting research on economic and management problems growing out

of the urgent need for managing all forest and non-cultivated lands.

- To create a pool of expert managerial consultants, which would be available to both public and private corporations or agencies.

The ensuing philosophy behind creation of Indian Institute of Forest Management were arrived at a seminar held which recommended that:

- The Indian Institute of Forest Management should be a national institute of education in forestry sector, aiming at a "Balanced development, conservation and utilisation of a forest based ecological system in India, consistent with the economic and social development of the nation.
- Research, education, training and consultancy activities of the proposed Indian Institute of Forest Management should be directed towards meeting management/educational needs of the entire forestry system, particularly the forest departments and forest development corporations.
- It should have a wider degree of freedom to develop its particular identity and the culture needed within an educational setting to foster this identity.
- As the leader in its field, be concerned with pushing the frontiers of knowledge, providing specialised knowledge to various parts of the system related to this field and helping the world of practice to use this knowledge.

The Institute has been developing as an educational, research, training and consultancy organisation at national and international levels. The faculty is a mix of academicians, management experts and forestry practitioners. The broad faculty areas in the Institute are:

- Applied Computer Technology and Quantitative Techniques for Forestry Operations.
- Communication and Extension Methods and Forestry Extension.
- Ecosystem Management and Technical Forestry.
- Financial Management, Accounting and Control.
- Forest Resource Economics and Management.
- Marketing Management.
- Personnel Management and Organisational Behaviour.
- Sociology and Social Anthropology.

Its aim is to inculcate the following skills in the students:

- Application of Concepts of Managerial Problems.
- Synthesis and Perspective Building
- Behavioural Skills.
- Technical skills.

Student placement activities are co-ordinated by the placement cell of the institute, which facilitates contacts with recruiting organisation, inviting job announcements, arrangements of pre-placement talks and scheduling campus interviews. In the year, 2000-02, there was 82% of placement in development sector, 12% in corporate sector and 6% in government sector. The Indian Institute of Forest Management has a brilliant track record of 100% campus placements for the past thirteen batches.

Participatory Concepts in Education

As far as Indian psyche is concerned, it is marked with values for sociability, personalised relationship and group working which is in sheer contrast with colonial transmitted bureaucracy. It is creating a dilemma for forest officers who will have to enact the dual personality while working at grassroots and departmental level. Its answer can be found in training them in time appropriate leadership skills, specifically in nurturant/participative management (Parul, 2002).

Empirical studies have proved that nurturant leadership is desirable at grassroots level while participatory leadership is desirable at departmental level. However, there is a long way to assimilate these styles in practice because of limited training in human and managerial concepts, specifically for field level forest staff. Parul and Kameswari (1999) conducted a study on Capacity and Competence Building of Forest Officers. The national level survey revealed greater demand for training and development in the field of computer applications, wildlife management/eco-tourism and with a substantial emphasis on human aspects of forestry, community forestry and human resource development. It indicates that forest officers are now realising the need for humanised attitude in their profession.

The Indian Institute of Forest Management is utilising the behavioural/participatory concepts in its administration, teaching methods, curriculum and training.

Administratively, it is an autonomous institute where faculty is free to choose their area of research within institutional mandate, design appropriate teaching courses, designing and marketing training programmes in a participatory and open work culture. They design their own activity plan for the academic year and work for it with sufficient flexibility. Participatory teaching pedagogy is utilised for teaching masters' level and M Phil, students in forestry and natural resource management which is marked with case discussions, interactive lectures, role plays, field visits and more of informal teaching. Teaching curriculum provides specific emphasis to human and social skills through courses on understanding human behaviour, group behaviour, organisational behaviour, human resource management, communication skills and participatory forest management. Through these courses, participants are able to appreciate the pertinence of these skills in the practical field.

Globalising Forestry Education

Forestry education of today is getting more and more globalised owing its intermingling with modern managerial principles and incoming of mega forestry projects assisted by international donor agencies. Looking into the more strategic and people centred attitude of these donor agencies, the needs for humanising forestry education have been further enhanced. IFS officers trained in the traditional bureaucratic system and government culture of red tapism, sometimes find it difficult to cope with the ever increasing humanising demands at the professional level. Indian Institute of Forest Management tries to compensate these demands through various short term Management Development Programmes (MDP) for in-service forest officers. The pedagogy of these Management Development Programmes and other teaching courses is participatory in nature. Alumni of this institute are working and doing research in various international universities and organisations across the globe.

The Indian Institute of Forest Management has also started an international student exchange programme to undertake research-apprenticeship for short duration as a step towards globalising forestry education.

Conclusions

To conclude, humanised forestry education incorporating participatory concepts is an answer to

emerging changes in forest policies and global environmental scenario. Capacity building and competence development of forest personnel is an important pre-requisites for effective forest management. Looking into the meta-disciplinary nature of the field, forestry requires a pluralistic understanding of a situation to ensure sustainable development, which will be possible only through incorporating participatory approach in education and training. The synchronisation of broader mandate of the Ministry of Environment and Forests with the state forest departments and forest officers' training needs is also required in this regard.

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No Time to Relax ! Roadmap for Future Indian Food and Agricultural Security

M V Rao, Former Special Director General, ICAR and Former Vice Chancellor, Angrau, Hyderabad delivered the Convocation Address at the XVth Convocation of the Institute of Agricultural Sciences, Banaras Hindu University, as a part of 85th Convocation of the Banaras Hindu University, Varanasi on February 3, 2003. He said, "Certain type of social commitment, patriotism, entrepreneurship and adventurism is needed. Let us not forget what Swamy Vivekananda said "So long as the millions live in hunger and ignorance, I hold every man a traitor, who having been educated at their expense pays not the least heed to them". Our course curriculum demands changes from time to time in view of the changing national and global scenarios like the WTO related globalisation and liberalization, PBRs, TRIPs, IPRs, patenting, privatization, farmers' rights, global biodiversity, UPOV rules and regulations, agri business, new seed policies, mechanization, quarantine and phytosanitary rules, biotechnological advances etc. While learning these new issues it is imperative that we do not neglect the basic sciences like taxonomy, cytology, cytogenetics, conventional plant breeding etc. The teachers have to keep themselves abreast with these developments to teach and motivate the students. The aim of education is not only development of the human personality, but also development of men and women who will be useful citizens and help in solving our problems." Excerpts.

The Agricultural Research Institute of Banaras Hindu University along with the Acharya Narendra Deva University of Agriculture and Technology, Faizabad is catering to the needs of farmers of the districts of Eastern Uttar Pradesh. I always felt that there is no State in India which is comparable for agricultural production potential, as Uttar Pradesh. It is the largest producer of all foodgrains in India. It is the largest producer of wheat, pulses, sugarcane and potato, second largest producer of rice, rapeseed, mustard, maize and mangoes, and third largest producer of coarse cereals. Besides these, it grows a wide range of other crops. It has a good infrastructure for agricultural research, education and extension by having a number of agricultural universities, agricultural research institutes, agricultural colleges, ICAR Research Institutions and Non-Governmental institutions. The State is endowed with fertile soils and a network of canals. The State has been a key player in our agricultural economy and it would become more important in the future in view of its vast potentialities. Let me not fail in my duty if I do not mention about the significant contributions made by the agricultural scientists of this State for the Indian agriculture and the world agriculture. Time and space do not permit me now to talk about their contributions, since I know personally many of them.

The two distinguished scientists Prof Yash Pal and Dr Panjab Singh who delivered the XIIIth and

XIVth Convocation Addresses respectively, dealt in detail the implications of globalization and liberalization, high-tech consumerism and the frontier areas of agricultural science and education.

In this XVth Convocation of the Institute I have chosen, to speak on the topic 'No time to relax, road map for future Indian food and agricultural security'. I chose this topic because in spite of advances we made after independence in increasing production of different agricultural commodities, still more than one-fourth of the Indian population is at present below the poverty line with daily incomes hardly sufficient to keep their body and soul together. Many people go to bed hungrily. Paradoxically the population which is today below the poverty line is the total population of composite India in 1900! The unprecedented widespread drought of this year reminds us that we cannot relax lulled by the Green Revolution, but we have to be ever alert and vigilant.

Before I dwell on the subject of my address, I would like to warmly congratulate the students who are getting their degrees, awards and rewards today. I wish them all success in their future endeavours, careers, contributions to the service of the country, to the mankind and, to the cause of knowledge. Young students, you are the future leaders, you have to carry the torch blazed by the old generation of scientists of the country who in their own humble way tried to

elevate India from the 'Basket case' or 'ship-to-mouth' or 'field-to-mouth' existence to the present food surplus level, due to which we are able to raise our heads among the comity of nations as one of the premier agricultural countries of the world. We built up large buffer stocks of foodgrains and we are able to help generously countries, which needed food, whether it is the war ravaged Vietnam or drought hit Sub-Saharan Africa or strife torn Afghanistan. Today, we are the third biggest producer of food grains in the world, the highest producer of milk and the second highest producer of rice and wheat. The country is in the 'top five bracket' for a number of agricultural commodities. We are also able to export several of our commodities too.

In spite of these advances we have several challenges and unresolved problems and hence we cannot relax. We have to tread several miles to catch up with the developed countries and become important players 'in the global trade and economy. At present, our contribution in agricultural exports in the world is only 0.6 per cent! We have the daunting challenge to improve the standard of living and nutrition of our people and also hand over to our posterity ecosystems that are sustainable and fertile for years to come. The early years of Independence had witnessed wide spread food shortages compelling us to import large quantities of food grains. Many predicted that India cannot feed itself and there would be widespread famines, starvations and deaths. Thanks to the 'Green Revolution' which started in the mid sixties when the production was 74.2 million tones we trebled the production by 2001-02 to 211.2 million tones. The per capita availability of food grains, which was 146.5 kgs/person/annum increased to 152.2 kgs in spite of doubling up of the population, which is by itself a great achievement indeed. Similar achievements were witnessed in all other food, tuber, commercial and horticultural crops, perhaps with the exception of pulses where our progress is limited. As a result of the sustained efforts of the farmers, scientists, policy makers, input agencies we have moved from an era of chronic deficiencies and imports to an era of surplus food stocks of over 60 million tons and, exports of rice, wheat and several commodities. A few years back India emerged as the major exporter of rice in the world while in 2000-01 Government of India released seven million tons of wheat for export and another five million tons in 2001-02. At this stage, it will be interesting to recollect that the total wheat production

of India in 1950-51 was only 6.4 million tons. Today India is the second highest producer of wheat in the world touching 76.4 million tons in 2000 A.D. Economists and policy makers admit that agriculture is crucial for growth of Indian economy and without progress in agriculture there will be slump in industrial progress and general growth rate. In spite of this assumption the good performance in the agricultural sector in the last few years appears to have lulled us to complacency. The allocation to agriculture in the different plan periods has come down. It was 14.7 per cent in the 4th Plan and today it stands at 4.9 per cent of the total outlay in the 10th plan period. The Capital Formation of the agricultural sector also came down from 19.9 per cent of the Gross Capital Formation of 1950-51 to 7.7 per cent in 2000-01. The present outlay for agricultural research is only 0.4 per cent of the GDP which is paradoxical for a country where 72 per cent of the population is rural and dependent on agriculture and allied activities, while in a developed country like America where only two per cent of the population depend on agriculture the national allocation is two per cent of the GDP. The widespread drought of 2001-02 has brought down the area under cultivation as well as production. It is estimated the *khariff* production of 2002 has fallen by about 20 million tons and the area under *rabi* wheat which many times compensates for the loss in *Khariff* is likely to come down by 3-4 million ha. thus affecting the wheat production too. If the buffer stock had not been there perhaps India would have reverted back to imports as in 1950's and 60's. In this context, it is pertinent to remind ourselves of the predictions of Lester Brown and Kane who opined that India with its present rate of growth of population and depleting land and water resources may have to import annually 45 million tons of food grains by 2030. Similar shortages would be witnessed for other agricultural commodities of common use when the population reaches 144 crores by 2030. Fertile land is diminishing even in a State like Uttar Pradesh, as is the case in other parts of India for urbanization or to erosion. India, a country of continental size faces every year droughts, floods, cyclones, losses from pests and diseases in one part or the other of the nation affecting agricultural production. This issue refers back to the theme of my address that we cannot afford to be complacent and relaxed and lulled by the immediate past, and, the present buffer stocks of food grains. Many opine, probably correctly, that these buffer stocks would disappear in no time if there is sufficient purchasing

power with our peoples, particularly the large mass who are below the poverty line.

When we look at the nutritional scenario of the country and analyse the status in each state, it is very depressing and disappointing. The reports of the National Nutrition Monitoring Bureau of 1997 and of 2002 reveal the poor nutritional status of our people. While the average consumption of cereals, millets and proteins is by and large as per the Recommended Daily Allowance (RDA) the consumption of pulses and legumes, green leafy vegetables, vegetables in general, fruits, milk and milk products, fats and oils, sugar and jaggery is far below the RDA. The intake of vitamin A, Riboflavin, folic acid and vitamin C is also low. Although iron intake is normal but its bio availability is low. Nearly 70 per cent of the pregnant women and adolescent girls suffer from iron deficiency. More than 50% children are underweight. An estimated 50,000 children go blind every year because of deficiency of vitamin A. India stands nowhere as compared to developed Western world in consumption of milk and milk products, eggs, meat, fruits, vegetables and other essential nutritious food items. The data for Uttar Pradesh shows that the consumption of milk and milk products, green leafy vegetables, fats and oils, sugar and jaggery, vitamin A and riboflavin is below the RDA. Further analysis of data based on age, sex, economic status, occupation and rural and urban population, land holdings, monthly income show lot of variation but the data on rural population, particularly children of different age groups is very disheartening. The conclusion is that we need more food, better food and more diversified food. The challenge before us is that we have to improve the nutritional well being of our people so that we have a strong and vibrant nation of healthy people. We scientists should continue to increase productivity and production of different items of food at costs that are affordable by ordinary people and, reduce under nutrition which is the mother of malnutrition. Consumption of food is related to the triple A's viz., Accessibility, Availability and Absorbability, economic status and employment. It is a challenge which has to be tackled through combined efforts of policy makers, and administrators, the peoples' organizations and by people themselves, and scientists have to be the path breakers and torch bearers with their technologies, strategies and guidelines.

Another challenge we have is increasing the yield/ha or the productivity of our different crops and

animals on a sustainable basis. Data of the last 30 years show that the net sown area remained more or less static at nearly 142 million ha. The good agricultural land is shrinking and we are encroaching on the forest lands reducing the forest cover and endangering the wild life. Unless massive efforts are made to reclaim waste and fallow lands there is no scope for area expansion and hence we have no other alternative except doubling our efforts for vertical growth through increased productivity per unit area and unit time. Here we have hope as well as tremendous opportunities, if we can put all the components of production together including protection against different biotic and abiotic stresses. When we look at the production figures per unit area of most of the crops/animals we raise and, compare them with those of countries like USA, Peoples Republic of China, Egypt, Japan, Israel etc., we realize that we are far below, in spite of the Green/Yellow/White/Blue revolutions. In well conducted field demonstrations in experimental stations and in progressive farmers fields, yields comparable to those obtained in other countries are obtained. This shows that it is possible to increase yield per hectare with appropriate practices. It is high time we concentrate on this aspect at micro level through aggressive farmer friendly policies, input supplies, extension and location specific technologies. As students and scientists we have to be very objective and not carried away by pro and anti propaganda lobbies on organic farming vs. chemical fertilization, biotechnology vs. conventional breeding methods etc. When we look at some of these issues dispassionately we realize that there is place for all these in our agriculture and animal husbandry. Soil nutrition, whether through chemical fertilizers or organic manures, coupled with integrated nutrient, water and pest management practices and appropriate cropping and farming system form the kingpin for boosting yield and making our agriculture and living sustainable.

Yet, one more challenge we have before us is the rainfed agriculture. In spite of the fact that our net irrigated area has gone up from 20.85 to 57.03 million ha in the last five decades, two-third of India's cultivable land is still rainfed. The rainfed lands are both hungry and thirsty. Many of our major crops like pulses, oilseeds, coarse cereals, cotton and even paddy (48% of paddy area is rainfed) are predominantly grown under rainfed conditions. Here agriculture is risky and heavily influenced by monsoon behaviour. A number of technologies have been developed

nationally and internationally, a number of inter and sequential cropping systems and farming systems have been worked out but the impact has been limited. Unless we improve our rainfed agriculture and give a major thrust to it in the coming years, when both under and above ground water is going to be limited, we will not be able to meet the growing demands of our population. I sincerely hope that some of you would become path breakers and pioneers and show us the way for improved productivity and sustainability of our rainfed agriculture.

India could be legitimately proud of its vast National Agricultural Research System consisting of the Indian Council of Agricultural Research with its vast network of research institutions and All India Coordinated Research Projects, Central Universities and the State Agricultural Universities and agricultural colleges in the private sector. Nearly 10,000 graduates, 5,000 postgraduates and 2,000 doctoral candidates are coming out of the portals of this system, every year. If India earned name and fame nationally and internationally in the agricultural sector, it is because of the contributions of our agricultural scientists and teachers. However, with employment opportunities getting less and less our students are facing an uncertain future. A national debate is needed on how to create job opportunities to our students. Can our students be job creators than job seekers by becoming entrepreneurs? Can they spread out and, operate agriclincs through multi-disciplinary mission-mode approach to transform our countryside? Can they become the path breakers through appropriate tie-ups with private and public sectors to start village industries which may be the answer for gainful employment and income generation for our rural people, by transforming raw materials to value added products? Certain type of social commitment, patriotism, entrepreneurship and adventurism are needed. Let us not forget what Swamy Vivekananda said "So long as the millions live in hunger and ignorance, I hold every man a traitor, who having been educated at their expense, pays not the least heed to them". Our course curriculum demands changes from time to time in view of the changing national and global scenarios like the WTO related globalisation and liberalization, PBRs, TRIPs, IPRs, patenting, privatization, farmers' rights, global biodiversity, UPOV rules and regulations, agribusiness, new seed policies, mechanization, quarantine and phytosanitary rules, biotechnological advances, etc. While learning

these new issues it is imperative that we do not neglect the basic sciences like taxonomy, cytology, cytogenetics, conventional plant breeding, etc. The teachers themselves have to keep themselves abreast with these developments to teach and motivate the students. The aim of education is not only development of the human personality, but also development of men and women who will be useful citizens and help in solving our problems. In the present knowledge explosion era, there is nothing like 'teaching' by the teachers and only 'learning' by students. Both the teachers and the taught have to learn all the time. Only those who consider themselves students throughout their life have some thing useful to convey to others.

I always held the view that agriculture basic to not only for our food security but also for our national security and self respect. These cannot be procured or secured by imports or dependence on others. We have experienced, how food is used as a weapon in international black mail and bargaining. Hungry people and hungry nations become vulnerable to exploitation and domination. We have to jealously protect all the inputs that lead to agricultural and food security, from domination, manipulation and exploitation by internal or external manipulators in the guise of privatization, globalisation or liberalization or by any such terminology. We have to be ever vigilant and put policies in place that would protect our national interest. We should not be lulled into complacency in the name of consumerism. Import of agricultural products, as rightly pointed by our eminent agricultural scientist Dr M S Swaminathan, is to import unemployment and poverty. Seed, besides fertilizers, herbicides and pesticides is one of the most critical inputs in agriculture. More than 80 per cent of our Indian farmers are small and marginal and the seed moves from farmer to farmer. If this has not been followed, there would not have been Green Revolution in our country. The small farmer cannot purchase every season or every year the highly priced hybrid seed or high tech seed for which lot of propaganda is made by interested parties, both domestic and foreign. If the crop fails due to erratic monsoon or due to some other reason, he cannot purchase the costly seed again for re-sowing. If the hybrid seed or high tech seed on which the farmer is made to depend does not reach in time the villages which are often poorly connected or not easily accessible in the rainy days, the farmer becomes helpless and put to lot of uncertainty and loss.

Policy makers and the National Agricultural Research System have to carefully ponder over this serious matter and also the genetic, vulnerability involved, and develop appropriate policies to protect and modernize our domestic seed industry. Let us recollect what the Father of our Nation, Mahatma Gandhi said, "A *Swadeshi* Movement is essential for the country's economic wellbeing". Otherwise, it may end up as the proverbial camel and the Arab story or end up as another East India Company model.

India is endowed with diverse soil and climatic conditions which enable it to raise most of the crops grown in different parts of the globe. Our strengths in genetic diversity for different crops is well known. In addition to field crops, we have strength in horticultural, plantation, vegetable and medicinal and aromatic crop plants. However, we are weak in product development, product diversification, product preservation and also in cutting down the post harvest losses, reducing pesticide residues or elimination of contamination by microorganisms. Uttar Pradesh is not only the home of our ancient civilization but also is the home for rich biodiversity for various crops. For students of agricultural sciences the whole horizon opens up in the area of exploitation of these rich resources for developing appropriate post harvest technologies for domestic use and for export purposes as well as for improving the nutrition and health of our people. Peri urban agriculture is another subject, which offers tremendous opportunities for enterprising young scientists and business people. The government has to move in a big way to enable our exploitation of our horticultural and other resources by developing proper infrastructure and by giving incentives.

There are many more challenges in the agricultural sector, like any other sector of importance to our society and country, but food security is the kingpin for our national security and, for this agricultural security is the bedrock to lean upon. So my dear students, you have several opportunities and also tremendous challenges on hand. Do not look back and do not dream about the future. It will neither give you back the past, nor satisfy your day dreams. Your duty, your reward, your destiny are here and now. Globally many things are happening and we have to be aware of those developments and we have to be aware of the national plans. But when it comes to execution, it has to be at the local level since agriculture is location specific. Our agricultural problems cannot be solved individually but by

multidisciplinary teams of scientists who should work with a missionary zeal in a well coordinated manner. Team work is most crucial for success. Do not forget even for a moment that we are in a world, which respects only strength. Strength comes from unity, hard work and absolute, incorruptible patriotism. Our young people must have the feeling of involvement in the country's future and we should work whatever our conditions may be instead of looking for greener pastures elsewhere. As Indira Gandhi once said, each student should say 'come what may I shall live and work for my country, to make it a better place to leave my mark on it'. Our core values should be:

Concern for the nation; concern for our people; concern for our farmers; concern for consumer; and concern for sustainability of ecosystems and finally commitment for excellence.

The household demand for foodgrains for direct human consumption and indirect demand for seed, feed, industrial usage etc. has been worked out by our economists. By 2010, India needs 246 million tons of foodgrains and by 2020 about 294 million tons, as compared to the present production of 211.1 million tons. On the same lines, production of other essential food items like milk, vegetables, fruits, sugar, meat, eggs and fish have to be increased. Since we do not have additional land to produce the additional quantities of our food and feed requirements we have only three alternatives viz., increase productivity per unit area or give increased emphasis to the backward areas or districts where the current yield levels are low or reclaim waste, uncultivable and fallow lands. In this context, we have to look at the opportunities of turning our attention to the 150 odd backward districts identified in the country where opportunities exist for improvement. Improving the level of knowledge of the rural masses in these districts should be the first step towards increasing their production potential. In this context inter linking of our rivers and judicious use of underground water without causing any ecological damage also assumes great significance as an answer to ensure uninterrupted water and food supplies to our growing populations. Let us pray that a political will and reason will prevail and, a broad consensus will evolve on sharing of water resources of our country in the overall wellbeing of all of us.

The road map for future Indian agriculture and food scenario is laid out in the vision document that

visualizes that "By 2020, India will be free of poverty, hunger and malnutrition, and become an environmentally safe country". It further affirms that "Hunger free India is an idea whose time has come. Let us launch a science-based crusade for elimination of hidden hunger and malnutrition by 2007 when the country will celebrate the 60 years of Independence". It further commends "Focus scientific efforts on eco-regional and farming system basis to develop efficient technologies for enhanced productivity, post harvest management, diversification and value addition, and rural craft and industry to provide remunerative options to and raise employment of small scale farmers, women and landless in rural India".

"Agriculture is the very heart of our economy and culture. I have no hesitation in saying that my Government represents, first and foremost, the farmers and rural community of India".

Dear students, I tried to place before you the challenges that are awaiting to be addressed and solved by you. If we do not tackle the food problems there will be no peace in the future. Hungry people do not listen to reason, or respect any law. The very edifice of our society will be at stake as islands of prosperity

cannot survive in oceans of poverty and hunger. So, all of us who are committed to progress, peace and development should not be complacent and relaxed till we make our country and country men more healthy, strong and vibrant. I wish you every success in this crusade and, also a satisfying, successful, purposeful and rewarding future.

I close my address by quoting what the visionary President of India, His Excellency, Dr APJ Abdul Kalam cited in his book *India 2020 - A Vision for the New Millennium*"

*Your country, brother, shall be your love!
Good unto better you shall improve!
Great deeds indeed are needed now!
Work hard, work long in farm and factory!
Let the land be abundant in milk and honey!
Flood the land with goods, all made at home!
Spread your handiwork all over the world!
Are you a patriot? Do not shout it aloud!
Bragging never did anybody any good!
Quietly, do a fine deed instead!
Let the people see it, it is they that decide!*

— *Deshabhakti* by Gurajada
Translated from Telugu by Sri Sri Mahakavi

Contd. from Page No. 7

whole system will again be commercialised. Eventually quality control techniques will be given little value, in due course of time.

- Lack of team spirit and equal opportunity for all may be harmful for such courses and conducting the programmes. Till depoliticisation of Teacher Education institutions is not being ensured, implementation may be difficult.
- Such courses may be cooperative ventures and in need of support from all expert Faculty members and Teacher Educators. University and institutional administration may be expected to extend all facilities required at the initial stage for such courses which may facilitate and motivate the organisers.

Therefore, the initiation and continuation of

Cafeteria Type of courses in Teacher Education institutions is the call of the day to meet the challenges of situation without any compromise with quality and standard of regular Teacher Education courses. Achievement of expertises in skills and competency criteria will be the urgent need of people. High cost of regular courses, their time consuming nature, competition in their entrance, compulsory attendance and such other factors may promote and motivate the public to participate in such courses.

So, the cafeteria type of specialisation courses may be started in Teacher Education with the motto of 'service above self' and a resource generation system, though never meant for commercialisation and money making business, but as a way of professional practice avenue for teacher and Teacher Educators. □

National Consultative Meeting on Women Managers

The National Assessment and Accreditation Council has initiated a programme for Capacity Building of Women Managers in Higher Education. A Meeting of the National Consultative Committee constituted by NAAC, was held at the National Institute of Advanced Studies, Bangalore with the future implementers of the training programme. There were 25 senior academicians representing the North, South, East, West and North-East regions of the country. Dr. Armaity Desai, the former Chairperson of the University Grants Commission was the Chairperson of the National Consultative Committee. The meeting was a prelude to the series of training programmes which will be launched from September to November, 2003.

Although there is a constitutional provision for gender equity in all spheres, in practice, it is far from being realised due to several reasons. Female infanticide, higher rate of female infant mortality and female malnutrition, maternal mortality, female non-enrolment and dropouts from the primary school upward and violence against women are known phenomena. On a positive note, the enrolment of women students in education is increasing quite significantly. There is an increasing number of women from the lower middle classes entering the educational system. It is encouraging to note that their number is increasing in higher education system also. Their representation in medicine, nursing and education is noteworthy. However, women still represent only about one-third of the enrolment in higher education. They represent over 50% enrolment in the faculties of humanities, social science and the science, but are a little over two fifth in the commerce faculty. They are under represented in many of the professional courses. In engineering and technology, they have only a little over ten per cent representations. Some of the Women Studies Centers in different regions have taken up the studies on representations of women in various disciplines.

Although, women's enrolment is high in certain faculties, their representation in teaching is much less and as Heads of Departments / Deans, even less. The

percentage of women at top decision making level is very small. We have only 13 Vice Chancellors, one Pro Vice Chancellor, three Women Registrars, 66 Deans, 13 Women Directors and 12 Women Librarians in the 300 universities in the country. The number of Vice Chancellors do not even constitute 5% of the total managers of higher education. This gross under-representation of women managers even in the educational system needs to be corrected. There is an awareness of this status and a concern to bring in greater gender justice by inducting more women into senior decision-making positions in the system. Several social, psychological and structural barriers have been identified for this situation. Strategies need to be devised for removing their barriers so that the potential available among women can be fully utilised for the effective functioning of the higher education system. Changes in policies of recruitment, training, transfer promotion and interacting with the external systems are enabling factors to create the right ambience for women to function. Creating a critical mass of women through capacity building is one of the strategies envisaged.

This meeting specifically focused on the modules prepared by the University Grants Commission through its expert committee 'The women and academic leadership' and 'Governance in higher education'. Capacity building for women is one of the three major themes of the policy recommendations for women in higher education management. The other two are: Policy changes required for bringing greater equality for women in higher education and Personal development of women students.

A common rationale put forward for the small number of women in higher education management is that there are not enough competent women in the pipeline to occupy the senior position. To rectify this situation, it calls for a strong policy to identify potential women and support a stronger capacity building programme, so that these women can be inducted into senior decision making positions. Many of the women managers are sincere, committed and maintain good interpersonal relations. But they seem to be less confident in interacting with the outside world. They have to widen their vision for the institution and aggressively move forward by

mobilizing funds and using them effectively. Overcoming many bottlenecks in the personal, psychological and social front is another challenge they have to face. From the analysis of the context and the special situations, the meeting addressed the following areas to take up for the training workshops in the five areas.

- Rationale, Concept and Approach of Governance and Leadership.
- Key issues on Women and Academic Leadership.
- Governance, Environment in Higher Education.
- Learning to Lead
- Understanding the Wider View
- Agenda for Women in Academic Leadership
- How to operate effectively in a University structure
- Helping yourself, helping other, helping institutions
- Vision for the Future.
- Implementing gender positive initiative for women
- Overcoming barriers, etc.

These topics along with case studies would be dealt with in the forthcoming training programmes focusing on Capacity Building for Women's Leadership in Governance of Higher Education. The Workshop in the North will be held in Delhi, South in Bangalore, East in Kolkata, West in Mumbai and North-East in Guwahati. All the States and Union territories will be represented in these five workshops. It is envisaged that those who are trained in these workshops will be the torchbearers for other women to take up managerial positions in higher education. Women need to harness feminine attributes such as insight, intuition and strong interpersonal skills to effect organisational change and implement new ideas in the universities. When women have access to leadership positions, a critical mass of women accrues in all areas of higher education thereby cultural norms will change to shared governance, member empowerment and decision making through democratic processes.

Goyal Prizes for Young Scientists

Kurukshetra University recently organised an Award Ceremony to distribute the Goyal Prizes and Rajib Goyal Prizes for young scientists. The Chief Guest on this occasion was Shri Om Prakash Chautala, the Chief Minister of Haryana. The Vice Chancellor,

Kurukshetra University, Shri R.S. Choudhary was present on the occasion.

Four eminent scientists of the country who received the Goyal Prize of Rs. One Lakh besides a medal and citation were: Dr. K.K. Talwar, Professor of Cardiology, All India Institute of Medical Sciences, New Delhi, Dr. Anil Kumar, Head, Sophisticated Instruments Facility, Indian Institute of Science, Bangalore, Dr. S.K. Brahamchari, Director, Institute of Genomics and Integrative Biology, Delhi and Dr. K.N. Pathak, Vice Chancellor of Panjab University, Chandigarh. As Prof. Anil Kumar was in the USA, the prize on his behalf was received by Dr. S.P. Singh, Professor Emeritus of Kurukshetra University.

The recipients for Rajib Goyal Prizes for Young Scientists consisting of Rs.50,000 each, medal and citation were: Dr. Ramesh Chandra, Vice Chancellor of Bundelkhand University, Jhansi, Dr. Yogendra Singh of the Institute of Genomics and Integrative Biology, Delhi and Dr. T.V. Aravindakshan of Kerala Agricultural University.

Lauding the contribution of these scientists, Dr. S.P. Singh, Co-chairman of the Organising Committee for Goyal Prizes and Professor Emeritus of Kurukshetra University said that Dr. Talwar was credited with original work in tropical heart diseases and had pioneered many new therapeutic techniques in the country for the cure of heart diseases. Dr. Anil Kumar has worked in the area of Nuclear Magnetic Resonance (NMR) studies of biomolecules with two great scientists who subsequently received Nobel Prizes in 1991 and 2002. Dr. Brahamchari is working in the emerging area of human genome sequencing and had identified genes for schizophrenia and associated neurological disorders, while Dr. Pathak is credited with distinct contribution in the field of atomic motions in liquids which may have applications in aerospace manufacturing.

Citing the work of young scientists, Dr Singh said that it was remarkable that Dr. Ramesh Chandra, who besides being a Vice Chancellor and the Director of Ambedkar Centre for Biomedical Research, University of Delhi had done pioneering work in the field of drug development. Dr. Yogendra Singh had contributed significantly in the area of bacterial diseases, specially anthrax and tuberculosis, while Dr. Aravindakshan, who was the youngest recipient of the prize, had contributed substantially into fields of biotechnology and molecular genetics in livestock sciences.

Goyal Prizes were instituted in 1991 by Ram S. Goyal. So far 36 distinguished scientists of the country had been honoured with these Prizes in addition to the newly established Rajib Goyal Prizes for Young Scientists which had so far been given to eight young scientists. The eminent scientists who had received the Goyal Prizes so far included, Dr. K. Kasturirangan, Chairman, ISRO, Dr. R.A. Mashelkar, Director General, CSIR, Dr. Goverdhan Mehta, Director, IISc, Bangalore and Prof. C.L. Khetrapal, former Vice Chancellor, University of Allahabad.

These Prizes were being run through a Trust till 2000 and are now being administered by Kurukshetra University after Mr. Goyal donated sufficient endowment money. Kurukshetra University has thus become the first University in the country to honour outstanding scientists in such a grand scale.

Quality Medical Education

The fifth Convocation of Rajiv Gandhi University of Health Sciences (RGUHS), Bangalore was held recently. Expressing grave concern over the commercialisation of medical and technical education in the country, renowned space scientist Prof. U.R. Rao called for an immediate check on the menace and pointed out that the very future of research and health services in the country was at stake.

Prof. Rao said that the commercialisation of medical education had resulted in the mushrooming of a large number of medical colleges without infrastructure and qualified teaching staff, producing poorly equipped graduates incapable of serving the society.

He also expressed concern that even qualified teachers were becoming obsolescent with the rapid advances in medical discipline due to non-availability of refresher courses. "Unless medical institutions are massively supported and encouraged to carry out high quality research in frontier areas, we will fail in our task of producing a new generation of medical scientists, innovators and educationists who can shape the future of health service in the country", he added.

Dwelling on the extremely low percentage of doctors available in rural areas, Prof. Rao suggested that the State and the Central Governments could overcome the lacuna by encouraging the practice of alternative medical system such as ayurveda, homoeopathy, unani and siddha. He said that medical colleges should ensure that the ancient medical systems are also subjected to high standards of

scientific analysis, rigorous quality control, systematic clinical trials and authenticated documentation to ensure their safe and reliable application.

Pointing out that basic food security was essential for a healthy society, Prof. Rao said an 'evergreen' revolution was the need of the hour to double India's food grain production.

Medical Education Minister, Sh. A.B. Maalaka Raddi, who is also the pro-chancellor of the university, gave away gold medal and cash prizes to meritorious candidates. Of the 24 gold medals presented, Dr. Rohan Augustine of J. N. Medical College, Belgaum and Dr. Chandrashekar Yavagal of SDM College of Dental Sciences topped the list with three gold medals each followed by Dr. Rajani Suresh Kalagate of J N Medical College, Belgaum who bagged two gold medals.

RGUHS Vice Chancellor, Dr. R. Chandrashekar read out a brief report of the achievements of the university. Registrar The Registrar Dr. K M Srinivasa Gowda and Registrar (Evaluation), Dr. Y J Visweswara Reddy were present.

Indo-German Technology Institute inaugurated

The Indo-German Institute of Technology (IGIT), a joint initiative of the Visveshwaraiah Technological University, Belgaum and Diamant Metallplastic GmbH, Germany was inaugurated recently at Bangalore. Among the stated objectives of the venture were to derive benefits from the scientific and technical knowledge from different parts of the world, and develop linkages with industries, service sectors and to institutions involved in engineering and technological activities.

Diamant Triumph Metallplastic Pvt. Ltd., Bangalore, a joint venture partner of the German firm will co-ordinate the activities of the University locally.

Presiding over the inauguration, Minister for Higher Education, Sh. G Parameshwar hoped for more of such academy-industry initiatives. He said that though he had been apprehensive of such academy-industry measures in the beginning, the results of such initiative had got him thinking otherwise.

'All these efforts would go a long way in getting us fully prepared, technically and commercially, to meet the scenario when WTO regime comes into effect in 2005', he said.

Dr. K Balaveera Reddy Vice Chancellor, said that the IGIT shall offer technology transfer and quality training for students, engineers and technicians. It will also be an instrument for establishment of connections between German and Indian firms.

National Seminar on Research Methodology

A National Seminar on Emerging Trends in Research Methodology (with special reference to Language teachers), sponsored by UGC, is being conducted by the Department of Tamil Research of Kongunadu Arts and Science College, Coimbatore, Tamilnadu on 18th, 19th and 20th June 2003.

Scholars undergoing M.Phil and Ph.D courses in Tamil Language and Literature, willing to participate in the Seminar may send the filled in application form to the Director of the Seminar on or before 10.05.2003.

Participants of the Seminar will be paid Traveling Allowance and Dearness Allowance as prescribed by UGC in this connection. Participants from outstation will be provided staying accommodation within the college premises.

For application form and further details contact Dr. S.Palanisamy, Reader and Director of National Seminar, Department of Tamil Research, Kongunadu Arts and Science College, Coimbatore - 641 029, Tamilnadu. E-mail: spsami@hotmail.com Fax: 0422 2644452 Phone: 0422-2644767.

National Workshop on DSP Applications

A National Workshop on DSP Applications is being organized by, the Centre for Development of Advanced Computing, Hyderabad, during 7th and 8th June, 2003. C-DAC Hyderabad has a well-established Embedded Systems Laboratory consisting of 8051, AVR, RABBIT, Motorola, PIC and ARM Microcontrollers and DSP Kits with relevant software tools. The Centre has experience in projects such as, Modern Realisation, Processing Real Time Audio Signals, Low Bit Rate Encoding etc. using DSP Processor, C-DAC Hyderabad also has a well-established lab for VLSI Design. The Centre has Mentor Tools for HDL Simulation and Synthesis and Tanner Backend Tools. It has carried out projects on HDLC Controllers, CAN Controller, PCI, USB Interface, Digital Filters, etc. The Workshop is intended to give the

participants a focused view on the role played by DSP in the fields of AUDIO and Video Signal Processing and Wireless Technologies. The pedagogy will include lectures, discussions and hands on using Analog Devices Kits. Engineers from Industry who want to know more about the capabilities of DSP and its application; the Electronics and Computer Engineering Faculty members who want to explore the applications in DSP; and R&D Engineers who want to explore in the field of DSP may attend the Workshop. Course contents of the Workshop would be DSP Technology Trends; Overview of DSP processors (16/32 bit, Fixed/Floating), Development tools; DSP Architecture and Benchmarking; System Design Aspects in DSP; Signal Analysis and Filtering; Fourier Transforms; FIR and IIR Filter Design; DSP Applications in Communications; Digital Audio Processing; and Digital, Video Processing; DSP in Wireless; Current technology trends; Software Defined Radio.

Participation Fee Rs. 4000/- (per participant). Participants can avail a discount of Rs.500/- on each participant, if the participants are two or more from the same organisation. Demand Draft drawn only on Nationalised banks in favour of "C-DAC" payable at Hyderabad for required registration fee may be sent for registration. For further details contact Mr. Sarang Deshpande, Workshop Coordinator, Centre for Development of Advanced Computing, 2nd floor, Delta Chambers, Ameerpet, Hyderabad 500 016. Telephone: 040-23401331/332 Fax: 040-23401531 E-mail: ste@cdac.ernet.in, RSVP: Ms. Devi/ Ms.Chandrakala (Ph: 040-23401331/2).

National Convention of Vice Chancellors of Accredited Universities

The National Assessment and Accreditation Council is organising a 'National Convention of Vice Chancellors of Accredited Universities' on 21st and 22nd May 2003 at the India International Centre, New Delhi. It is being organised at time when NAAC has completed accreditation of about 100 universities and over 400 colleges. The Convention aims to create a conducive climate for universities to influence one-another with exchange of healthy practices. The focus of the Convention is to understand the enabling strategies from the perspective of Vice Chancellors of accredited universities and policy planners about the post-accreditation developments and also to

provide meaningful direction to the universities yet to be accredited. The Convention will help to collect the views of Vice Chancellors to internalise the culture of quality consciousness as an integral feature in Indian Universities. It also aims to create conducive atmosphere for focused development of universities and guide them towards attaining high order academic excellence. The endeavour is to develop right focus on higher education so that quality education is accessible to cross sections of the society, thereby helping the country in the advancement of knowledge. The accredited universities have to lead the march and pave the way for removal of knowledge obsolescence and transform themselves to user-centric centres of excellence.

The broad areas scheduled for discussions in different sessions: Refining the Process of Assessment and Accreditation; Post-accreditation Quality Sustenance, Identification and Propagation of Best Practices, Networking of Accredited Institutions, and Knowledge Alliances; A and A Outcomes into Policy Planning (Integration of A and A Results into Policy Planning of UGC/MHRD/State Government); Consortium of Accredited Universities; and New Challenges and Adaptive Strategies.

Vocational Education and Development Award

On the eve of the Vocational Education Day celebrated under the aegis of the World Institution Building Programme (WIBP), New Delhi, Dr. M P Yadav, Director, Indian Veterinary Research Institute, Izatnagar was conferred the prestigious recognition for his contributions in the area of vocation at education at a function organised at India International Centre, New Delhi. The award was jointly instituted by the International Association of Educators for World Peace, an affiliate of ECOSOC, UNESCO and the WIBP, India. Dr. Yadav received the award from the environmental scientist, Prof. Priya Ranjan Trivedi, President of WIBP. Dr. Yadav acted as the Guest of Honour of World Vocational Education Day 2003 Celebrations. Addressing a galaxy of educationists representing science, art and culture, Dr. Yadav delivered his views on vocational education for employment generation with special reference to vocationalisation of environmental careers. □

ATTENTION ADVERTISERS

Advertisers are requested to send the advertisements for publishing in the 'University News' through e-mail : aiu@del2.vsnl.net.in. This will help in speedy and accurate transfer of text. The text of the advertisement may be send as an attachment through e-mail, preferably in MS Word. We solicit your cooperation in this regard.

We Congratulate.....

Prof. K. L. Sharma, who has taken over as the Vice Chancellor of the University of Rajasthan, Jaipur.

Shri D. K. Ghosh, who has taken over as the Vice Chancellor of Padmashree Dr. D Y Patil Vidyapeeth, Navi Mumbai.

Prof. O. P. Singh, who has taken over as the Vice Chancellor of Kumaun University, Nainital.

Dr. Anwar Alam, who has taken over as the Vice Chancellor of Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar.

Dr. A. K. Chawla, who has taken over as the Vice Chancellor of Kurukshetra University, Kurukshetra.

Prof. Aditya Shastri, who has taken over as the Director of Banasthali Vidyapeeth, Banasthali.

Dr. S. Sharavanan, who has taken over as the Vice Chancellor of Vinayaka Mission's Research Foundation, Salem.

Prof. Surender Singh, who has taken over as the Vice Chancellor of Mahatma Gandhi Kashi Vidyapeeth, Varanasi.

Prof. Gautam Barua, who has taken over as the Director of the Indian Institute of Technology, Guwahati, Guwahati.

Role of the Head of Institution in NAAC's Perspective

In order to maintain quality of higher education, the University Grants Commission had established the National Assessment and Accreditation Council (NAAC) in 1994. To begin with, it was voluntary to go through the exercise. However, from June 2000, UGC has made it mandatory to all the affiliated colleges and universities to go through NAAC evaluation. It is also related to development grants to be received from UGC. Day by day, the cost of higher education is increasing and the Government is finding it difficult to fund higher education, as compared to primary education. Priority is given to primary education as the social rate of return is high with it while for higher education the personal rate of return is high. However this justification is not true. The social rate of return of higher education is also high as reflected from development of high yielding varieties of life-saving drugs, rapid communication techniques, etc. Higher education is a service. It has to face competition due to changes in economy, globalisation, and hence improvement of quality of higher education is a must. In this regard, the Head of the institution has to become active and to play a key role in co-ordinating the various components to higher education institute.

Present Scenario

The Head of the institution, be it the Principal, Registrar or Vice Chancellor, is basically a teacher in the first place, and then an administrator. The selection is by merit and experience. No competitive examination like that for IAS, IPS is to be given. However, with some honourable exceptions, once the offices are occupied, they simply forget the duties of teachers and look through a bureaucratic view. Some become lethargic and mechanical. Some suffer from social and political pressure on the part of the management, students, staff, education department, etc., due to which they will have no free hand in decision-making.

Qualities and Functions of the Head

The Head of the institution has to perform a key

role while running the educational institution. He should act as a co-ordinator between various components of an education system which comprises of UGC, university, State Government on one hand and teachers, students, and society on the other. In this regard, he should possess a balanced and mature personality.

The Head of the institution should project himself as a model amongst staff and students. He should be prompt in his duties. He should engage the number of periods, to be in touch of students. He should make use of modern audio-visual aids while engaging the classes so that other staff take inspiration through these acts.

He should have a devotion towards the institute. He should be a full time employee of the institute, i.e., the employee who spends and thinks nearly 24 hours for the progress of institute so that others can follow him.

He should be the caretaker of the staff and students. He should safeguard the interest of employees, students and society within the framework of rules and regulations. He should make guidance and counselling to students. He should insist the Management for Group Insurance of students and staff.

He should have healthy relationship with NGO officials like Rotary Club, NIMA, Bar Council, Sports Clubs, etc. He should involve these people in various extra-curricular activities. He should plan some outdoor events in collaboration with these NGOs for creating the scientific temper, health awareness, literacy, population control, awareness regarding AIDS, human rights, etc.

The state Governments, UGC and universities have given emphasis on personality development of students by implementing programme like NSS, NCC, NAEP, employment cells, entrepreneurship development programs, campus interviews, etc. Trainers training programs are arranged to train the faculty members at the cost of organisers. The head

of the institution has to depute the faculty member and to sanction the duty leave. The Heads should come forward with positive thinking and harness such opportunities so that majority of staff get oriented in such activities at nearly zero cost. Such teachers must submit the detailed report of training/conference/workshop/seminar. The head should understand the report and plan the activities accordingly.

He must have the ability to forgive. 'To err is human' and hence the administrator should forgive his staff member if he surrenders honestly. However, if the person commits mistakes repeatedly just due to negligence, then the administrator should be tough enough to take actions in order to maintain discipline.

He should look after the generation of resources by using the potentials of staff, students and an optimum use of available infrastructure. He must possess the insight to look 10-20 years ahead and plan accordingly. He must have futuristic view. Many educational institutions have ample agricultural land. The college should implement horticulture promotion scheme of Government. Plantation of neem, teak wood, medicinal plants, etc., may be undertaken so that after five-six years, there will be an attractive

income from such plantations. The institution can undertake programmes like biofertilizer production, nursery development, vermi compost processing unit, soil analysis, etc., to serve the farmers.

The Head of the institution should insist and orient the staff for submission of proposals of major/minor research projects. For this, he must subscribe enough number of journals/periodicals of various subjects. He should insist teachers for reading them. He should motivate and participate in group discussions on topics of current research through research forums. The faculty will be in a position to evolve topics for major/minor research projects. He should provide infrastructure facilities for preparing proposals.

He should forget the philosophy of 'Divide and Rule' and adopt the new philosophy of 'Integrate and Rule'. □

Gujarathi D.B.
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Majalgaon-431 131 (M.S.)



INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Corrigendum to the Notice for admission to Ph.D./ M.Des./M.Tech. Programmes at Indian Institute of Technology Kanpur, dated March 9, 2003

As per the decision of the Academic Senate of IIT Kanpur on April 17.2003, the B.Tech. Graduates from the IITs with a CGPA score of 8.0 or above (on a scale of 10) without having to appear in GATE, would also be entitled for **Assistantship** at the M.Tech./M.Des. Programmes of the Institute. However, admissions may be given to some students without assistantship with the following eligibility criteria. Such eligibility criteria for the B.Tech. students from IITs, seeking admission to M.Tech./M.Des. Programmes at IIT Kanpur without a GATE score, are an overall CGPA of 6.5 and a CGPA of 8.0 during the last 2 years in B.Tech. In view of these new criteria for admissions, the last date of receiving applications for such candidates is extended by 7 days from the date of publication of this notification in the newspapers.

Dean of Academic Affairs

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities (Notifications received during December, 2002-January, 2003)

HUMANITIES

Fine Arts

1. Chenna Reddy, G. **Kapila Geeyanlu Shrama: Jivana soandaryam, Ananthaparam Zilla.** Department of Fine Arts, Potti Sreeramulu Telugu University, Hyderabad.

Music

1. Abhilasha. **Punjab tatha Haryana ke bhaktyatmak sangit mein prayukt vadyon ke unnati evam vikas mein dharam Acharyon ke yogdan ka sameekshatmak adhyayan.** Department of Music, Kurukshetra University, Kurukshetra.

2. Abhyankar, Snehal Vivek. **Ragmala chitre: Ek sangitik shodh.** (Dr C V Deshmukh). Department of Music, Dr Babasaheb Ambedkar Marathwada University, Aurangabad.

3. Satish Kumar. **Kathak nritya ke vikas mein hiswin shatabdi ke pramukh kalakaron ka yogdan.** Department of Music, Kurukshetra University, Kurukshetra.

4. Sushila Rani. **Thumri ke parivartit swaroopon mein gayak, vadak evam nartak kalakaron ka yogdan.** Department of Music, Kurukshetra University, Kurukshetra.

5. Tiwari, Akhand Pratap. **Beesvin sadi mein Rewa Sambhag ke jan samanya mein sangitik tatvon ka adhyayan.** (Dr Devashresh Banejee), Department of Music, Awadhesh Pratap Singh University, Rewa.

6. Upadhyaya, Anju. **Mahadevi Verma ke kavya mein sangit.** (Dr Suhasini Sathe), Department of Music, Awadhesh Pratap Singh University, Rewa.

Geography

1. Chaturvedi, Brijesh Kumar. **Rewa Jile ke paryavaran per aadyogik vikas ka prabhav: Ek bhaugolik adhyayan.** (Dr Sumant Singh), Department of Geography, Awadhesh Pratap Singh University, Rewa.

2. Kailash Singh. **Shahdol Jile ke Janjatiyon ke samajik evam arthik jeewan ke badlav per bhaugolik vatavaran ka prabhav.** (Dr S U Khan), Department of Geography, Awadhesh Pratap Singh University, Rewa.

History

1. Gupta, Vandana. **Kalchuri kaleen dbarmik sthiti ka adhyayan: Tripuri ke Kalchuriyon ke visesh sandarbh mein.** (Dr S K Sullerey), Department of Ancient Indian History, Culture and Archaeology, Rani Durgavati Vishwavidyalaya, Jabalpur.

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Languages & Literature

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Telugu

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Urdu

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Philosophy

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Religion

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3. **Associate & Assistant Professors :**
Medical Surgical Nursing, O.B.G. Psychiatry,
Paediatrics & Community Health Nursing.
4. **Lecturers :** Medical Surgical Nursing, O.B.G.
Psychiatry, Paediatrics & Community Health Nursing.
Qualification: M.Sc. (N) in respective speciality.
5. **Asst. Lecturers :** Qualification: B.Sc. (N) with or
with out experience.

SALARY : Negotiable, Preference will be given to experienced candidates. Retired people with good health may also apply. (Age should not attain 65 years)

Note :

1. Salary in commensurate with the qualification and experience.
2. Application should be sent on plain paper giving complete bio-data and all necessary certificates within 15 days of this publication of this notice.
3. Interested candidates may walk in the office of the Secretary for personal interaction.

Administrative Officer

PANJAB UNIVERSITY, CHANDIGARH

(Advertisement No. 4/2003)

Applications are invited for the following posts, so as to reach the Assistant Registrar (Establishment), Panjab University, Chandigarh by Registered post, by 26.05.2003

1. **Director Sports - 1 (Directorate of Sports) :**
Rs. 16400-22400
2. **Programmer - 1 (University Institute of Engineering & Technology) :** Rs. 8000-13500
3. **Library Assistants - 3 (A.C. Joshi Library-2 and U.I.E.T.-1) :** Rs. 5480-8925
4. **Multipurpose Worker(Female) - 1 (Bhai Ghanayia Ji Health Centre)(Reserved for SC/ST) :**
Rs. 3330-6200 & Rs. 100 P.M. as Uniform Allowance
5. **Lift Operator - 1 (Administrative Block) :**
Rs. 3120-5160 + Rs. 580 P.M. as Special Allowance
6. **EPABX Operator(Tele. Unit) - 2 :** Rs. 3120-5160 +
Rs. 50 P.M. as Special Allowance

Application form for (i) A Class (Sr. No. 1-2)(General Category) alongwith 'Detailed Instructions' containing qualifications etc., can be had either from cash counter, State Bank of India, Panjab University, Chandigarh on payment of Rs. 375/- (Rs. 150/- for SC/ST candidates) (ii) B. Class (General Category (Sr. No. 3-6) on payment of Rs. 250/- (Rs. 100/- for SC/ST candidates) or from Assistant Registrar (Establishment) by sending a crossed a/c payee's Bank Draft payable at Chandigarh or of the same amount in favour of Registrar, Panjab University, Chandigarh accompanied by a self-addressed stamped (worth Rs. 15/-) envelope of 30cm x 12cm.



UNIVERSITY OF MADRAS

(ACCREDITED WITH 5 STAR STATUS)

NOTIFICATION

Applications (8 copies) are invited from qualified persons for appointment to the post of Controller of Examinations in the University, so as to be received by Dr.N.Mani, Registrar by name on or before 16-05-2003.

Scale of pay : Rs.16400-450-20900-500-22400 plus allowances admissible under the rules of the University.

Tenure : Three years in the first instance of which the first year shall be on probation, only on satisfactory completion of probation, the incumbent will be continued for the rest of the term, by the Syndicate. (The incumbent is eligible for re-appointment for another term of three years by the Syndicate subject to the rules of superannuation in force framed under the laws of the University)

Age : Should not have completed the age of 52 years (Fifty - two years) as on the date of application for the post.

Qualification : Ph.D. Degree in any discipline obtained from a recognised University

Experience : A minimum total experience of 15 years involving teaching/research/administrative responsibilities inclusive of the following specific experience of which.

(a) at least 3 years experience as Registrar or Controller of Examinations in a recognised University or an institute recognised as equivalent thereto by the UGC.

OR

(b) at least 3 years experience as Principal of a college affiliated to a recognised University or as Professor in a University department.

OR

(c) at least 3 years experience as Reader/Selection Grade Lecturer in a recognised University or an institution recognised as equivalent thereto by the UGC or in a college affiliated to a recognised University.

Note : 1) The University reserves the right to relax qualifications in exceptional cases. (2) Also the University reserves the right to short list the applicants for calling for the interview. (3) The University also reserves the right to fill or not to fill the post.

How to apply : Candidates may apply to the Registrar of the University (by designation only) for specimen application form along with a D.D. for Rs.100/- (Rupees one hundred only) towards the fee, drawn in favour of the Registrar, University of Madras, Chennai - 600 005, payable along with a self addressed envelope (Size 25 cms x 12 cms) stamped to the value of Rs.10/-.

Candidates called for interview will not be paid any T.A. & D.A. Last date for receipt of duly filled in applications is 16-05-2003.

Applications from candidates, who are in service, should be sent through proper channel. If they anticipate any delay, they may send advance copies (7) to the Registrar. However, their applications will be considered and they will be called for interview only if their applications forwarded through proper channel are received in time.

Specimen application forms which are not obtained from the Registrar, as mentioned above, will be summarily rejected.

Applications, lacking in particulars, incomplete or unaccompanied by necessary documents will be summarily rejected.

Applicants should be prepared to attend interview, at their own cost at Chennai.

REGISTRAR
University of Madras



COMPUTER SOCIETY OF INDIA

CSI PUBLICATIONS ARE OPEN TO SUBSCRIBERS

Computer Society of India (CSI) is the premier Professional society of IT users in the country. Registered in 1965, CSI has been contributing significantly for helping the users of Information Technology on Technical updates, services and for improving the knowledge of IT professionals in the country and abroad. While 20,000 members are in various categories of membership, there are 40,000 student members in CSI. Institution Members, officials from Governments, Academicians and Industry experts provide a galaxy of innovative abstractions through which CSI could establish bridges between Industry & Academic institutions.

CSI publishes a monthly magazine and a quarterly Journal for the members.

"CSI Communications" is a **monthly** publication of CSI which include articles on Technology updates, success stories of use of IT, details on calendar of events such as conferences, specialized seminars, career opportunities, quizzes, puzzles etc.

"The Journal of CSI" is the research journal. It is a **quarterly** publication with quality research papers of very good standard. The Editorial team consists of academicians of International standards.

So far, these publications have been confined to the CSI members only. Several requests have reached our CSI office from Institutions conducting MCA, B.Tech/M.Tech, M.Sc(Computer Science) or Ph.D programmes to spare these publications for other people through Institutions/libraries. CSI Executive Committee has accepted these requests and opened as the first step to consider **educational institutions in the country for subscribing these two publications at an annual subscription charge of Rs.2000/-**.

A letter for subscribing (1) CSI Communications and (2) Journal of CSI, may be sent to the following address by enclosing a D.D in favor of "COMPUTER SOCIETY OF INDIA" payable at Mumbai for Rs.2000/-:

Ms.Priyalata Pal, Executive Secretary,
Computer Society of India
122, T.V Industrial Estate
S.K.Ahire Marg, Worli
Mumbai-400 025

Fax no:022-24950543
Phone nos:022-24943422,24934776
Email: csi@bom2.vsnl.net.in

Subscriber Address be clearly mentioned. Subscription for TWO or THREE years could be sent by enclosing suitable DD for Rs.4000/- or Rs. 6000/- (@ Rs.2000/- per year.)

Prof. P. Thrimurthy
CHAIRMAN, CSI PUBLICATIONS



NATIONAL MUSEUM INSTITUTE
OF HISTORY OF ART, CONSERVATION & MUSEOLOGY
(Deemed University)
JANPATH, NEW DELHI- 110 011

National Museum Institute of History of Art, Conservation and Museology (NMIHACM) is a unique Museum University established by the Department of Culture, Ministry of Tourism & Culture, Government of India, and is located at the National Museum, New Delhi. It offers MA and Ph. D Courses in History of Art, Conservation & Restoration of Works of Art and Museology as well as a few short-term courses. Admission for the current year is open for MA and Short-term courses.

A. M.A. COURSES

Applications are invited from eligible candidates for admission to MA programmes for the Session 2003-04 in the following subjects:

1. M.A. (History of Art)

Eligibility: BA in History of Art, Fine Arts, History, Archaeology, Sociology, Anthropology, Philosophy, Literature, Classical languages.

2. M.A. (Conservation & Restoration of Works of Art)

Eligibility: BSc (with Chemistry or Physics as one of the main subjects) or BFA.

3. M.A. (Museology)

Eligibility: BA in any branch of humanities e.g. History of Art, Archaeology, Fine Arts, Anthropology etc.

Desirable Qualifications for admission to all MA courses: Knowledge of one classical or foreign language such as Sanskrit, Persian, Arabic, Greek, Latin, German, French, Italian etc.

General

1. Good academic record with 50% and above marks at Graduate level is essential for admission to all MA courses.
2. Candidates seeking admission to MA programme shall be expected to pass a written examination followed by an interview.
3. Reservation of seats for SC/ST etc. shall be as per Govt. rules.
4. The Information Brochure (MA courses) for the year 2003 can be had from the Office of the Institute on payment of Rs.200/- (Rupees Two hundred only) in cash; or Rs.250/- in the form of crossed Demand Draft payable to "NMIHACM" on any Nationalised Bank in New Delhi, if needed by post. The application on the prescribed form (annexed with the Information Brochure) duly supported by copies of Documents/Certificates should reach Dr. P. K. Sharma, Assistant Registrar (Academic) latest by 31st May, 2003.

B. SHORT TERM COURSES

Applications on prescribed forms are invited for admission to the three short-term-courses (a) "India: Art & Culture, (b) "Art Appreciation" and (c) "Bhartiya Kalanidhi" (Hindi Medium). Each course is of five months duration. Classes will be held once in a week in the National Museum Institute. Forms may be obtained from the office on payment of Rs.20/- in cash only and submitted, duly filled up alongwith passport size photograph to Dr. P. K. Sharma, Assistant Registrar (Academic) latest by 31st May, 2003.

Dr. B. Venugopal
REGISTRAR



INDIAN NATIONAL SCIENCE ACADEMY

Bahadur Shah Zafar Marg, New Delhi 110 002

INSA MEDAL FOR YOUNG SCIENTIST FOR YEAR 2004

CALL FOR NOMINATIONS

Since 1974, The Academy has instituted **INSA Medal for Young Scientist** with the aim of recognizing young scientists of extraordinary promise and creativity who have made notable research contributions in Science and Technology. This award, considered to be the highest recognition of promise, creativity and excellence in a young scientist, is made annually to those distinguished for these attributes as evidenced by their research work carried out in India. Only those born on or after **January 1, 1972** are eligible for consideration in the year 2004.

The awardee shall receive a **certificate**, a **bronze medal** and cash award of **Rs. 25,000/-** and **incentives in research work** and further overseas training.

A candidate may be proposed by a Fellow of the Indian National Science Academy or by earlier recipients of this award. Scientific societies of national standing, university faculty / and research institutions may also make nominations of eligible candidates.

The last date for receiving nominations in Academy is, **October 15, 2003.**

Nomination proforma can be obtained from **Assistant Executive Secretary (Council)** at above mentioned address by sending a self addressed envelope of 25cm x 12cm size.



CENTRAL INSTITUTE OF ENGLISH AND FOREIGN LANGUAGES

(An Institute of Higher Education Deemed to be a University)
HYDERABAD - 500 007 INDIA

The following Post-Graduate Programmes are offered by the Institute beginning July / August 2003

ADMISSION NOTICE: 2003-04

(All candidates should qualify at the Entrance Test)

PROGRAMME	ELIGIBILITY	PROGRAMME	ELIGIBILITY
HYDERABAD CAMPUS (REGULAR MODE)		SCHOOL OF FOREIGN LANGUAGES	
01. MA English (2 yrs.) with specialization in Teaching English as a Second Language (TESL)/ Media & Communication/Linguistics/ Applied Linguistics/English Literature/Literary & Cultural Studies	Graduation in any discipline Entrance Test is common for all the Programmes under 1 & 2. Please make only one application for MA	14. MA (Regular mode) in Arabic/French/ German/Spanish (2 yrs)	Bachelor's degree with the language concerned as an elective subject or as a second language OR Bachelor's degree in any discipline and language proficiency in the foreign language concerned, equivalent to at least diploma level (two years of language learning).
02. MA (2 yrs) in Teaching English as a Second Language (TESL)/Media & Communication/ Linguistics/ Applied Linguistics/ English Literature/Literary & Cultural Studies		15. MA (Distance Mode) in French/Russian/ Spanish (3 yrs)	Same as for MA (Regular mode)
SCHOOL OF LANGUAGE SCIENCES		16. Post Graduate Diploma in the Teaching of Arabic/ Spanish (1 yr)	MA in the language concerned (in case of Arabic MOL) with at least a II Class or Grade C average
03. M Phil in English (Linguistics & Phonetics) (1 yr)	MA in Linguistics/Phonetics/Applied Linguistics or MA in English with specialization in Linguistics/Phonetics/ Applied Linguistics. OR MA (Hons) in Linguistics/Phonetics OR Semester I of PGDTE/DES. In all the above a minimum of 55% OR a GPA of 3.00 without Grade 'E'.	17. M Phil (Regular mode) Arabic/French/ German/Russian/Spanish (1 yr)	(i) MA in the language concerned (in case of Arabic MOL) with a high second class (55%) or grade B average OR (ii) MA in the language concerned (in case of Arabic MOL) with Grade C average and a PGCT/DT with at least an overall grade C OR (iii) MA in the language concerned (in case of Arabic MOL) with a minimum of 5 years' experience in teaching the language concerned at a recognized institution.
04. M Phil in Linguistics/Phonetics/Applied Linguistics (1 yr)		18. M Phil (Distance Mode) Russian/Spanish (2 - 2 1/2 yrs)	(i) MA in the language concerned (in case of Arabic MOL) with a first class or grade A average OR (ii) MA in the language concerned (in case of Arabic MOL) with at least a second class or grade B average and PGCT/DT with at least an overall grade C OR (iii) M Litt./ M Phil or an equivalent qualification in the language concerned OR (iv) MA in the language concerned (in case of Arabic MOL) and a minimum of 7 years' experience teaching the language concerned at any recognized institution.
05. Ph D in English (Linguistics & Phonetics) (3 yrs)		19. Ph D in Arabic, French, Russian/Spanish (3 yrs) (Regular mode) & Russian (Distance Mode)	
06. Ph D in Linguistics/Phonetics/Applied Linguistics (3 yrs)			
SCHOOL OF ENGLISH LANGUAGE EDUCATION		CIEFL LUCKNOW CAMPUS	
07. M Phil in English Language Education (1 yr)	MA (TESL/MA English) with course work in ELE area OR MA (Hons) in TESL OR Semester I of PGDTE/DES OR equivalent in all the above a minimum of 55% OR a GPA of 3.00 without a Grade 'E'	20. MA English (2 yrs)	Graduation in any discipline
08. Ph D in English Language Education (3 yrs)	Same as for 07 above	21. Post Graduate Diploma in the Teaching of English (PGDTE) (1 yr)	MA in English, second class OR an equivalent qualification with 55%. Relaxable for Sponsored Teachers
09. Ph D in English Language Education (part-time)	(i) MA in English OR at least a high second class Masters Degree (Grade B or 55% minimum) in an allied subject (Linguistics/Education/Mass Communication/ Psychology) and (ii) M Phil (ELT) from CIEFL OR an equivalent qualification with 2 years of teaching experience	22. Post Graduate Diploma in Communication (1 yr)	Graduation in any discipline with 50% marks
SCHOOL OF CRITICAL HUMANITIES		23. M Phil in English (Linguistics & Phonetics) (1 yr)	(i) MA in English with at least II Div. and (ii) PGDTE or semester I of PGDTE with a GPA of 3.00
10. M Phil in English Literature (1 yr)	MA in English with a high second class (55% minimum). However, in exceptional cases candidates from allied subjects in Humanities/Social Sciences with an MA (with a high second class or 55% minimum) may also be considered provided they have the necessary proficiency in English.	CIEFL NORTH EAST CAMPUS SHILLONG	
11. Ph D in English Literature (3 yrs)	Same as for 10 above	24. MA English (2 yrs)	Graduation in any discipline
12. (a) Advanced Diploma in Professional Translation (1 yr)	(i) Graduate/Post Graduate degree from a recognized University (ii) In the case of students of Foreign Language(s) An Advanced Diploma level (16) from CIEFL with at least Grade 'C' - GPA 2.50 OR its equivalent qualification from a recognized institution and an excellent command of English.	25. Diploma in Mass Communication (1 yr)	Graduation in any discipline
French → English	Advanced Diploma in Professional Translation	26. M Phil in ELT/English Literature (1 yr)	MA in English with 55% marks. Relaxable for sponsored teachers
German → English		27. Ph D in ELT/English Literature (3 yrs)	MA in English/Linguistics with 55% marks
English → Telugu			
(b) Post Graduate Diploma in Translation Studies (1 yr)			
SCHOOL OF DISTANCE EDUCATION			
13. Ph D in English (Linguistics and Phonetics/ English Language Education /English Literature) (4 yrs. minimum)	M Phil in English OR completion of M Phil (English) (CIEFL) course work with a GPA of 3.00		

Reservations and fee concessions as per GOI & UGC guidelines. Application forms can be had by post from the Editor CIEFL, Hyderabad - 500 007 on payment of a non-refundable fee of Rs.200/- (Rs.100/- for SC/ST) in the form of a Demand Draft drawn in favour of Registrar, CIEFL, payable at Hyderabad, or on cash payment at the Institute. Write on the envelope "Request for Application" specifying the Programme (MA / M Phil / Ph D / Diploma). The application forms can also be downloaded from CIEFL website (www.ciefl.ac.in). A DD for Rs.200/- should be enclosed with such forms. Candidates applying for more than one programme can obtain additional forms by paying an extra amount of Rs.50/- for each form.

Last Date for sale and receipt of Applications : 23 May 2003

Dates of Entrance Examinations MA English & Foreign Languages : 22 June 2003

M Phil / Ph D	Date
English Literature & Linguistics & Phonetics (L & P)	17.6.2003
English Language Education (ELE)	18.6.2003
Interviews for those who qualify in the Written Test	19.6.2003

The dates of Entrance Tests and Interviews for Lucknow and Shillong campuses will be announced by the respective Campus Directors.

Test Centres for M.A & Advanced/ PG Diploma in Translation : Bangalore, Bhubaneswar, Chennai, Delhi, Hyderabad, Kochi, Kolkata, Lucknow, Mumbai, Shillong

Test & Interviews for M.Phil. & Ph.D. at CIEFL, Hyderabad.

Hostel Accommodation is subject to availability.
More details can be found in the prospectus.

Date : 25.04.2003

Sd/
G. Venkateswar Rao
Registrar

RANBAXY RESEARCH AWARDS 2002

Nominations are invited from Heads of Research Institutions, Universities and Medical & Pharmaceutical Colleges, for the **Ranbaxy Research Awards - 2002.** There are four Awards of Rs. 1 lakh each, for excellence in original research, in Medical and Pharmaceutical Sciences.

MEDICAL SCIENCES

One Award each for
Basic Research, Medical Research and
Clinical Research.

PHARMACEUTICAL SCIENCES

One Award.

The sponsored work of Indian scientists, both in India and abroad, together with their bio-data, research achievements, awards received in the past and papers published, may be forwarded (in 12 bound sets) to the Ranbaxy Science Foundation by 1st July, 2003.

Details of the procedure are being circulated to nominators and are also available from the office of the Foundation and on our Website. A panel of judges, comprising eminent scientists, will review the research work. Non-resident Indian scientists are also eligible for these awards.



**RANBAXY
SCIENCE FOUNDATION**

DR. O. P. SOOD

Member Governing Council

RANBAXY SCIENCE FOUNDATION

Plot # 20, Sector 18, Udyog Vihar Industrial Area,
Gurgaon-122 001 (Haryana), India

Phone : (91-124) 2341477, 2342001-10; 5012501-10

Fax : (91-124) 2343545; 2342017

E-mail : omprakash.sood@ranbaxy.com

Website: <http://www.ranbaxysciencefoundation.com>

مولانا آزاد نیشنل اردو یونیورسٹی
 Maulana Azad National Urdu University
MAULANA AZAD
NATIONAL URDU UNIVERSITY
 GACHIBOWLI, HYDERABAD - 500 032.



Visit us at www.manuu.ac.in

ADMISSION NOTIFICATION 2003 - 2004

MANUU has been established in 1998 by an Act of Parliament as a Central University at the national level with all-India jurisdiction *mainly to promote and develop Urdu language and impart vocational and technical education in Urdu medium through conventional teaching and distance education system.* The University offers admission to the following programmes of study by distance mode in Urdu medium :

1. First Year B.A., B.Sc., B.Com., (3 Year Degree) Programmes :

- Those who have passed Intermediate or 10+2 (irrespective of their medium of study) or an examination recognized by MANUU as equivalent thereto are eligible for direct admission. The details of equivalent examinations are given in the Prospectus. The last date for receipt of completed applications for admission with a programme fee of Rs. 800/- is 04.10.2003.
- Those who have not passed Intermediate or 10+2 or an equivalent examination are also eligible on qualifying in the Eligibility Test to be conducted by the University on Sunday **20.07.2003** at 70 Study Centers and other places on all-India basis. They should complete 18 years of age by **31.08.2003**. The last date for receipt of completed applications for Eligibility Test with a registration fee of **Rs. 125/-** is **30.06.2003**. The last date for submission of ET qualified admission forms is **04.10.2003**.

2. Certificate Programme in Food & Nutrition (6 months duration)

No formal educational qualification is prescribed. Those who can read and write Urdu language are directly eligible for admission provided they complete 18 years of age by 31.08.2003. The last date for receipt of completed applications for admission with a programme fee of Rs. 350/- is **04.10.2003**.

3. Certificate Programme in Proficiency in Urdu through English (6 months duration)

No formal educational qualification is prescribed. One should be acquainted with English/Hindi and should complete 18 years of age by 31.08.2003. The last date for receipt of completed applications for admission with a programme fee of Rs. 350/- is **04.10.2003**.

4. Certificate Programme in Proficiency in Urdu through Hindi (6 months duration)

No formal educational qualification is prescribed. One should be acquainted with English / Hindi and should complete 18 years of age by 31.08.2003. The last date for receipt of completed applications for admission with a programme fee of Rs. 350/- is **04.10.2003**.

5. Functional English (6 months duration)

Minimum qualification X Pass is required. The last date for receipt of completed application forms for admission with a programme fee of Rs. 350/- is **04.10.2003**.

6. Certificate Programme in Computing (6 months duration)

Those who have passed Intermediate or 10+2 or an examination recognized by MANUU as equivalent thereto are eligible for admission directly. The last date for receipt of completed applications for admission with a programme fee of Rs. 1000/- is **04.10.2003**.

The Prospectus-cum-application form containing detailed information about all of the above said courses (cost Rs. 45/- in person and Rs. 60/- by post) can be obtained against cash payment from the sales counters at the Directorate of Distance Education, MANUU, Gachibowli, Hyderabad-500 032. These can also be obtained by post, by sending a crossed Demand Draft from any nationalized bank in favour of **Maulana Azad National Urdu University payable at Hyderabad** to the Director, Directorate of Distance Education, Maulana Azad National Urdu University, Gachibowli, Hyderabad - 500 032 along with written requisition specifying the programme of study and complete postal address with pin code. Money Orders, Postal Orders or Cheques will not be accepted. The University will not be responsible for any delay or loss in postal transit. The Prospectus-cum-application forms can also be had from the Regional / study centers of the University located at different places of India. All queries related to admission may be clarified at
Phone Number : 040 - 23006615.

Registrar I/c